

Access DB# 164840**SEARCH REQUEST FORM****Scientific and Technical Information Center**

Requester's Full Name: Peter A Szekely Examiner #: 69764 Date: 9/6/05
Art Unit: 1714 Phone Number ~~30~~ 272-1124 Serial Number: 101665340
Mail Box and Bldg/Room Location: Remsen Results Format Preferred (circle): PAPER DISK E-MAIL
10029

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Manufacturing method of the grip rubber for the exercise device
Inventors (please provide full names): Wang-Pin Pan

Earliest Priority Filing Date: 9/22/03

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

See enclosed claim.

SCIENTIFIC REFERENCE BR
Sci & Tech Inf - Ctr

SEP - RECD

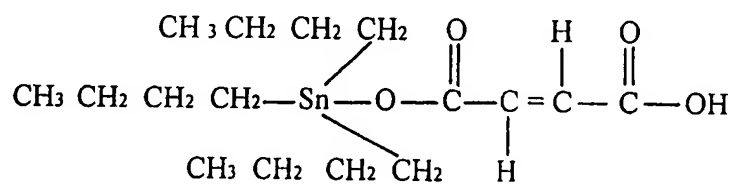
Pat. & T.M. Office

STAFF USE ONLY**Type of Search****Vendors and cost where applicable**

Searcher: <u>85</u>	NA Sequence (#) _____	STN _____
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) _____	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr. Link _____
Date Completed: <u>9-21-05</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: _____	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: _____	Other _____	Other (specify) _____

CLAIMS

A manufacturing method of the grip rubber for an exercise device, comprising the steps of first diluting a PU resin by adding the PU resin to a DMF solvent, followed by adding and mixing mildewproof, antibacterial and aromatic agents into the resin-solvent mixture, wherein the mildewproof and the antibacterial agents is a chemical solvent shown as:



then the mixed substance will be spread onto non-woven fabrics and fastened to a handle portion of the exercise device; finally, the grip rubber will be immersed in the water to allow the PU resin to freeze and mold; or the molded grip rubber can be immersed in the mixed liquid of the mildewproof, the antibacterial and the aromatic agents to absorb the mildewproof, the antibacterial and the aromatic agents; therefore, the mildewproof, antibacterial and aromatic agents can combine with the grip rubber thereby eliminating odor and imparting resistance to mildew and bacteria.

=> file reg

FILE 'REGISTRY' ENTERED AT 14:39:10 ON 21 SEP 2005
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FILE 'LREGISTRY' ENTERED AT 13:27:39 ON 21 SEP 2005

L1 STR
L2 STR

FILE 'HCAPLUS' ENTERED AT 13:34:40 ON 21 SEP 2005

L3 1760 S PAN W?/AU
L4 48250 S EXERCIS?
L5 3 S L3 AND L4
SEL L5 1-3 RN

FILE 'REGISTRY' ENTERED AT 13:35:07 ON 21 SEP 2005

L6 3 S E1-E3
L7 1 S L6 AND SN/ELS

FILE 'HCA' ENTERED AT 13:35:57 ON 21 SEP 2005

L8 4 S L7
L9 408586 S RUBBER? OR ELASTOM?
L10 2 S L8 AND L9

FILE 'REGISTRY' ENTERED AT 14:07:14 ON 21 SEP 2005

L11 50 S L1
L12 51015 S L1 FUL
SAV TEM L12 SZE340/A
L13 50 S L1 AND L2 SSS SAM SUB=L12
L14 STR
L15 50 S L14 SSS SAM SUB=L12
L16 1671 S L14 SSS FUL SUB=L12
SAV L16 SZE340A/A

FILE 'HCA' ENTERED AT 14:21:47 ON 21 SEP 2005

L17 1506 S L16
L18 136 S L17 AND L9

FILE 'LREGISTRY' ENTERED AT 14:22:13 ON 21 SEP 2005

L19 STR L14

FILE 'REGISTRY' ENTERED AT 14:25:49 ON 21 SEP 2005

L20 0 S L19 SSS SAM SUB=L12
 L21 58 S L19 SSS FUL SUB=L12
 SAV L21 SZE340B/A

FILE 'HCA' ENTERED AT 14:26:48 ON 21 SEP 2005

L22 133 S L21
 L23 27 S L22 AND L9
 L24 225514 S ANTIBACTER? OR BACTERIOCID? OR BACTERICID? OR MILDEW? A
 L25 13 S L18 AND L24
 L26 4 S L8 OR L10
 L27 36 S (L23 OR L25) NOT L26
 L28 179475 S URETHAN## OR POLYURETHAN##
 L29 28 S L18 AND L28
 L30 14 S L29 NOT (L26 OR L27)
 L31 14 S L27 AND L28
 L32 36 S L31 OR L27

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L1 STR

Ak~Sn

1 2

NODE ATTRIBUTES:

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DEFAULT MLEVEL IS ATOM

GGCAT IS SAT AT 1

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

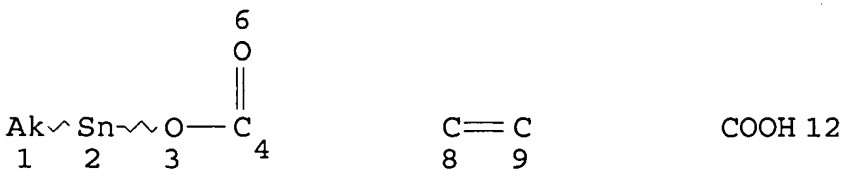
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NUMBER OF NODES IS 2

STEREO ATTRIBUTES: NONE

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L19 STR



NODE ATTRIBUTES:

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DEFAULT MLEVEL IS ATOM
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NUMBER OF NODES IS 8

STEREO ATTRIBUTES: NONE
L21 58 SEA FILE=REGISTRY SUB=L12 SSS FUL L19

100.0% PROCESSED 132 ITERATIONS 58 ANSWERS
SEARCH TIME: 00.00.01

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FILE 'HCA'
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=> d l26 1-4 cbib abs hitstr hitind

L26 ANSWER 1 OF 4 HCA COPYRIGHT 2005 ACS on STN

142:299262 Manufacturing of **rubber** grip for exercise device.
Pan, Wang-Pin (Taiwan). U.S. Pat. Appl. Publ. US 2005065233 A1
20050324, 3 pp. (English). CODEN: USXXCO. APPLICATION: US
2003-665340 20030922.

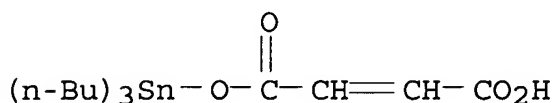
AB The invention herein relating to a manufg. method of the grip
rubber for the exercise device, more esp., the manufg.
method of the mildewproof and antibacterial grip **rubber**
for the exercise device is characterized that during the manufg.
process of the grip **rubber**, the mildewproof, the
antibacterial and the arom. agents are added or the manufd. grip
rubber is immersed in the mixed liq. of the mildewproof, the
antibacterial and the arom. agents, to allow the mildewproof, the
antibacterial and the arom. agents to attach to the grip
rubber and thus to achieve the mildewproof and antibacterial
effect. The title mildewproof and antibacterial grip **rubber**
is made where antibacterial and the arom. agents are directly added
or the manufd. grip **rubber** is immersed in the mixed liq.
of the mildewproof, the antibacterial and the arom. agents, to allow
the mildewproof, the antibacterial and the arom. agents to attach to
the grip **rubber**.

IT 93191-21-0

(mildewcide; manufg. of **rubber** grip for exercise device)

RN 93191-21-0 HCA

CN 2-Butenoic acid, 4-oxo-4-[(tributylstannyl)oxy] - (9CI) (CA INDEX NAME)



IC ICM C08K003-00

INCL 523122000

CC 39-15 (Synthetic Elastomers and Natural Rubber)

Section cross-reference(s): 38

ST **rubber** handle grip manuf antibacterial agent sporting good

IT Sporting goods

(manufg. of **rubber** grip for exercise device)

IT Natural **rubber**, uses

Synthetic **rubber**, uses

(manufg. of **rubber** grip for exercise device)

IT Antibacterial agents

(organotin compds.; manufg. of **rubber** grip for exercise device)

IT 93191-21-0

(mildewcide; manufg. of **rubber** grip for exercise device)

L26 ANSWER 2 OF 4 HCA COPYRIGHT 2005 ACS on STN

137:233903 Manufacturing of **rubber** grip for exercise device.

Pan, Wang-pin (Taiwan). U.S. Pat. Appl. Publ. US 2002132876 A1
20020919, 3 pp. (English). CODEN: USXXCO. APPLICATION: US
2001-810392 20010319.

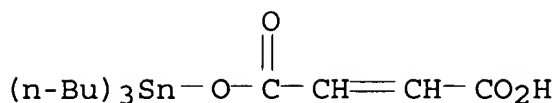
AB The title mildewproof and antibacterial grip **rubber** is made where antibacterial and the arom. agents are directly added or the manufd. grip **rubber** is immersed in the mixed liq. of the mildewproof, the antibacterial and the arom. agents, to allow the mildewproof, the antibacterial and the arom. agents to attach to the grip **rubber**.

IT 93191-21-0

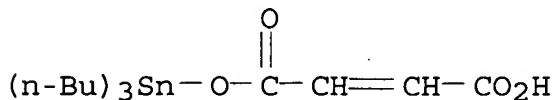
(mildewcide; manufg. of **rubber** grip for exercise device)

RN 93191-21-0 HCA

CN 2-Butenoic acid, 4-oxo-4-[(tributylstannyl)oxy] - (9CI) (CA INDEX NAME)



- IC ICM C08J003-00
ICS C08L001-00; C08K003-00
INCL 523122000
CC 39-15 (Synthetic Elastomers and Natural Rubber)
ST **rubber** handle grip manuf antibacterial agent
IT Sporting goods
(manufg. of **rubber** grip for exercise device)
IT Natural **rubber**, uses
Synthetic **rubber**, uses
(manufg. of **rubber** grip for exercise device)
IT Antibacterial agents
(organotin compds.; manufg. of **rubber** grip for exercise device)
IT **93191-21-0**
(mildewcide; manufg. of **rubber** grip for exercise device)
- L26 ANSWER 3 OF 4 HCA COPYRIGHT 2005 ACS on STN
63:64097 Original Reference No. 63:11821b-c Method of making polyurethan foam. Ricciardi, Michael A.; Considine, William J. (M & T Chemicals Inc.). US 3198757 19650803, 4 pp. (Unavailable).
APPLICATION: US 19610612.
- AB A gel catalyst and a blowing catalyst are used. For example, polyalkylene polyol (Niax Triol LG-56) 100, trimethyl end-blocked dimethyl polysiloxane 1.0, com. tolylene diiso-cyanate 38.6, H₂O 2.9, gel catalyst stannous 2-ethylhexanoate 0.3, and a blowing catalyst 0.3 part by wt. were vigorously stirred. A rise time of 90 sec. and a gel time of 100 sec. was noted when the blowing catalyst was Bu₃Sn lauryl mercaptate, Bu₃Sn deriv. of bisphenol A, Bu₃Sn deriv. of Santonox R, Bu₃Sn 2-ethylhexyl oxide, or Bu₃Sn laurate. Times are given for 22 other catalysts. Exotherm temps. were 107-120.degree.. Products were odor-free.
- IT **93191-21-0**, Tin, tributyl[(3-carboxyacryloyl)oxy]-
(catalyst, in urethan polymer from manuf.)
RN 93191-21-0 HCA
CN 2-Butenoic acid, 4-oxo-4-[(tributylstannyl)oxy]- (9CI) (CA INDEX NAME)



INCL 260002500

CC 48 (Plastics Technology)

IT 93191-21-0, Tin, tributyl[(3-carboxyacryloyl)oxy]-
(catalyst, in urethan polymer from manuf.)

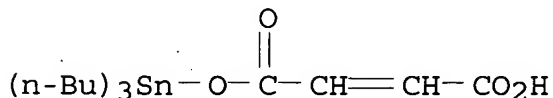
L26 ANSWER 4 OF 4 HCA COPYRIGHT 2005 ACS on STN

60:65409 Original Reference No. 60:11503f-g The infrared spectra of organotin compounds. Cummins, R. A.; Dunn, P. Australia Commonwealth Dept. Supply Defense Std. Lab. Rept., 266, 106 pp. (Unavailable) 1963.

AB The IR spectra of organotin compds. (polyalkyltin carboxylates, polyaryltin carboxylates, polyalkyl-and-aryltin halides, olefinic tin compds., org. tin oxides and sulfides, etc.) are reviewed, and assignments listed for IR vibrations involving the Sn atom combined with other atoms. A bibliog. of organotin compds. on which some IR data have been published is given. The IR spectra of 198 organotin compds. of which 41 were com. products, have been recorded over the wavelength range 4000-450 cm.⁻¹ About half of the compds. examd. were new materials.IT 93191-21-0, Tin, tributyl[(3-carboxyacryloyl)oxy]-
(spectrum of)

RN 93191-21-0 HCA

CN 2-Butenoic acid, 4-oxo-4-[(tributylstannyl)oxy]- (9CI) (CA INDEX NAME)



CC 10 (Spectra and Some Other Optical Properties)

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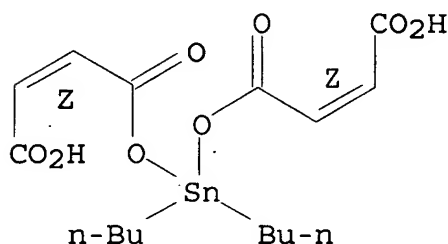
L32 ANSWER 1 OF 36 HCA COPYRIGHT 2005 ACS on STN

141:396691 Silica-reinforced **rubber** compounded with an alkoxysilane and a catalytic alkyl tin compound. Lin, Chenchy Jeffrey; Hergenrother, William L. (Bridgestone Corporation, USA). U.S. Pat. Appl. Publ. US 2004225038 A1 20041111, 18 pp. (English). CODEN: USXXCO. APPLICATION: US 2003-435648 20030509.AB A sulfur-vulcanizable **elastomeric** compd. comprises: an **elastomer** (e.g., SBR) optionally having an alkoxysilane terminal group; a reinforcing filler comprising silica or a mixt. thereof with carbon black; an alkyl alkoxysilane; a mercaptosilane silica coupling agent, wherein the wt. ratio of the mercaptosilane

to the alkyl alkoxysilane is a max. of 0.14:1; a catalytic amt. of an alkyl tin compd.; and a cure agent comprising an effective amt. of sulfur to achieve a satisfactory cure. The compns. give improved tensile mech. properties and dynamic viscoelastic properties.

- IT 10192-92-4, Dibutyl tin dimaleate
(silica-reinforced **rubber** compounded with an alkoxysilane and a catalytic alkyl tin compd.)
- RN 10192-92-4 HCA
- CN 2-Butenoic acid, 4,4'-[(dibutylstannylene)bis(oxy)]bis[4-oxo-, (2Z,2'Z)- (9CI) (CA INDEX NAME)

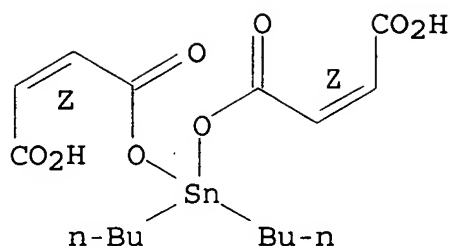
Double bond geometry as shown.



- IC ICM C08J003-00
- INCL 524109000; 524262000; 524493000
- CC 39-9 (Synthetic Elastomers and Natural Rubber)
- ST silica reinforced **rubber** alkoxysilane mercaptosilane coupler alkyl tin catalyst
- IT Silanes
(alkylalkoxy; silica-reinforced **rubber** compounded with an alkoxysilane and a catalytic alkyl tin compd.)
- IT Silanes
(mercapto, coupling agents, for silica; silica-reinforced **rubber** compounded with an alkoxysilane and a catalytic alkyl tin compd.)
- IT Coupling agents
(mercaptosilane, for silica; silica-reinforced **rubber** compounded with an alkoxysilane and a catalytic alkyl tin compd.)
- IT Carbon black, uses
(silica mixts., filler; silica-reinforced **rubber** compounded with an alkoxysilane and a catalytic alkyl tin compd.)
- IT Tires
(silica-reinforced **rubber** compounded with an alkoxysilane and a catalytic alkyl tin compd.)
- IT Natural **rubber**, uses
Rubber, uses
(silica-reinforced **rubber** compounded with an alkoxysilane and a catalytic alkyl tin compd.)
- IT Styrene-butadiene **rubber**, preparation

- (tetraethoxysilane- terminated, tin-coupled; silica-reinforced **rubber** compounded with an alkoxysilane and a catalytic alkyl tin compd.)
- IT 7631-86-9, Silica, uses
(filler; silica-reinforced **rubber** compounded with an alkoxysilane and a catalytic alkyl tin compd.)
- IT 77-58-7, Dibutyl tin dilaurate 301-10-0, Bis(2-ethylhexanoate) tin
818-08-6, Dibutyl tin oxide 10192-92-4, Dibutyl tin dimaleate 13355-96-9 23850-94-4, Butyl tin tris(2-ethylhexanoate) 304671-74-7
(silica-reinforced **rubber** compounded with an alkoxysilane and a catalytic alkyl tin compd.)
- IT 2943-75-1, Octyl triethoxysilane 7699-41-4, Silicic acid (H₂SiO₃)
14814-09-6, 3-Mercaptopropyltriethoxysilane
(silica-reinforced **rubber** compounded with an alkoxysilane and a catalytic alkyl tin compd.)
- IT 9003-55-8P
(styrene-butadiene **rubber**, tetraethoxysilane-terminated, tin-coupled; silica-reinforced **rubber** compounded with an alkoxysilane and a catalytic alkyl tin compd.)
- IT 7704-34-9, Sulfur, reactions
(vulcanizing agent; silica-reinforced **rubber** compounded with an alkoxysilane and a catalytic alkyl tin compd.)
- L32 ANSWER 2 OF 36 HCA COPYRIGHT 2005 ACS on STN
- 141:262200 Curable compositions with good storage stability and initial curability for sealants, adhesives, and coatings. Kato, Hidetoshi; Hirose, Toru; Sakae, Kazuhisa (Toray Fine Chemicals Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2004256569 A2 20040916, 15 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2003-45537 20030224.
- AB The compns. comprise (a) polymers contg. .gtoreq.2 thiol groups, (b) compds. having .gtoreq.2 NCO groups, (c) In compds., and (d) organotin compds. Thus, a compn. contg. a polymer prepd. from polypropylene glycol, epichlorohydrin, and Thiokol LP 55 (polysulfide **rubber**), and crosslinking catalysts contg. Nacem Indium (indium acetylacetonate) and STANN BL (dibutyltin dilaurate) was mixed with tung oil-contg. polypropylene glycol-xylene diisocyanate **urethane** prepolymer and cured to give a sealant showing good tensile elongation after heating at 90.degree..
- IT 10192-92-4D, Dibutyltin dimaleate, salts or alkyl esters
(curable compns. with good storage stability and initial curability for sealants, adhesives, and coatings)
- RN 10192-92-4 HCA
- CN 2-Butenoic acid, 4,4'-[(dibutylstannylene)bis(oxy)]bis[4-oxo-, (2Z,2'Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



- IC ICM C08G018-52
ICS C08G018-22
- CC 42-11 (Coatings, Inks, and Related Products)
Section cross-reference(s): 38
- IT Polysulfide **rubber**
(Thiokol LP 55, reaction products with polypropylene glycol and **polyurethanes**; curable compns. with good storage stability and initial curability for sealants, adhesives, and coatings)
- IT **Polyurethanes**, uses
(polyoxyalkylene-polysulfide-polythiourethane-; curable compns. with good storage stability and initial curability for sealants, adhesives, and coatings)
- IT Polysulfides
(polyoxyalkylene-polythiourethane-**polyurethane**-; curable compns. with good storage stability and initial curability for sealants, adhesives, and coatings)
- IT Polyoxyalkylenes, uses
(polysulfide-polythiourethane-**polyurethane**-; curable compns. with good storage stability and initial curability for sealants, adhesives, and coatings)
- IT **Polyurethanes**, uses
(thio-, polyoxyalkylene-polysulfide-**polyurethane**-; curable compns. with good storage stability and initial curability for sealants, adhesives, and coatings)
- IT 77-58-7, STANN BL 10192-92-4D, Dibutyltin dimaleate, salts or alkyl esters 14405-45-9, Nacem Indium 583059-85-2, S-Cat 4A
(curable compns. with good storage stability and initial curability for sealants, adhesives, and coatings)
- IT 106-89-8DP, Epichlorohydrin, reaction products with polypropylene glycol, polysulfide **rubbers**, and **polyurethanes**
25322-69-4DP, Polypropylene glycol, reaction products with epichlorohydrin, polysulfide **rubbers**, and **polyurethanes** 54786-28-6DP, Polypropylene glycol-xylylene diisocyanate copolymer, polymers with SH-contg. polyoxyalkylene-polysulfides
(curable compns. with good storage stability and initial curability for sealants, adhesives, and coatings)

L32 ANSWER 3 OF 36 HCA COPYRIGHT 2005 ACS on STN

141:107382 Protective composite pad for horse and livestock trailer.
Ochoa, Randy; West, Larry; Ramesh, Natarajan S. (Sealed Air Corporation US, USA). U.S. Pat. Appl. Publ. US 2004137210 A1 20040715, 14 pp. (English). CODEN: USXXCO. APPLICATION: US 2003-341992 20030114.

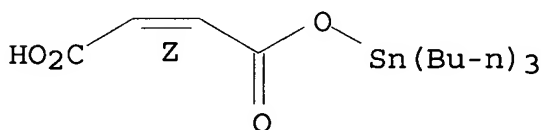
AB A composite pad particularly useful in a horse trailer, exercise room, or playroom has a moisture-impermeable and scuff-resistant outer skin layer, a cushioning layer, an impact absorbing layer, and a backing layer. A typical pad comprised a PVC layer as outer skin layer, a LDPE foam as cushioning layer, a HDPE foam/LDPE skin layer as impact absorbing layer, and a **rubber** mat as backing layer.

IT 4027-18-3, Tributyltin maleate
(protective composite pad for horse and livestock trailer)

RN 4027-18-3 HCA

CN 2-Butenoic acid, 4-oxo-4-[(tributylstannyl)oxy]-, (2Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IC ICM B32B003-26

ICS B32B003-00; B32B009-00

INCL 428315900; 428304400; 428318400

CC 38-3 (Plastics Fabrication and Uses)

ST PVC LDPE foam HDPE **rubber** mat protective pad; protective composite pad moisture impermeation horse livestock trailer

IT Phenols, uses

Polyesters, uses

Polyurethanes, uses

(backing layer; protective composite pad for horse and livestock trailer)

IT **Rubber**, uses

(backing mat; protective composite pad for horse and livestock trailer)

IT 56-35-9, Tributyltin oxide 4027-18-3, Tributyltin maleate

5035-58-5 77598-50-6

(protective composite pad for horse and livestock trailer)

L32 ANSWER 4 OF 36 HCA COPYRIGHT 2005 ACS on STN

140:219235 Cap sealing materials with improved lining properties.

Moriga, Toshinori; Aoyama, Naoki; Tsuchiya, Hiroyuki; Komaki, Takashi; Fujisawa, Kazuo (Toyo Seikan Co. Ltd., Japan; Japan Crown Cork Co., Ltd.; Fukuoka Packing Co., Ltd.). Jpn. Kokai Tokkyo Koho JP 2004075071 A2 20040311, 12 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2002-181678 20020621. PRIORITY: JP 2002-177290 20020618.

AB The materials are **polyurethane elastomers** prepd. by heat curing of liq. compns. contg. (A) polyisocyanates with Mn 200-2000, (B) polyols with Mn 200-2000, and (C) 5-25% granular thickeners showing pH 4-10 when dispersed in equiv. amt. of H₂O and show hardness (JIS-A) 30-85, compression set (JIS K7312) 0.1-60%, and sp. gr. 0.5-1.5. Thus, polytetramethylene glycol (PTG 1000SN) 41, adipate-type polyester glycol (P 1010) 13, adipate-type polyester triol 8, talc (pH 8) 25, TiO₂ 2, oleic acid bisamide 2, erucamide 2, silicone oil 2, Irganox 1010 0.3 parts, and 300 ppm/polyol of dioctyltin maleate polymer (KS 1010A1) were blended to give a polyol compd., which was mixed with 38.5 parts polyisocyanate (HDI-1,3-butylene glycol copolymer) to give a cap sealing material showing good curability, applicability inside a cap, JIS-A hardness 65, compression set 15%, sp. gr. 1.2, good sealing property and opening property, and less elution.

IT 191348-69-3, KS 1010A1
(catalyst; cap sealing materials based on **polyurethane elastomer** compns. contg. granular thickeners)

RN 191348-69-3 HCA

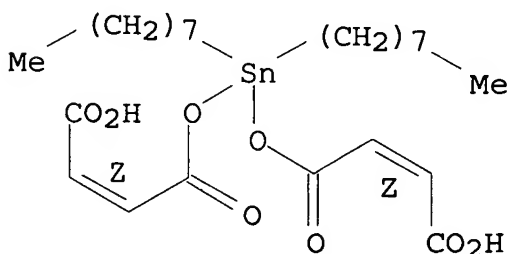
CN 2-Butenoic acid, 4,4'-[(dioctylstannylene)bis(oxy)]bis[4-oxo-, (2Z,2'Z)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 15571-60-5

CMF C24 H40 O8 Sn

Double bond geometry as shown.



IC ICM B65D053-06

ICS C08G018-72; C08K003-00; C08K005-00; C08L075-04

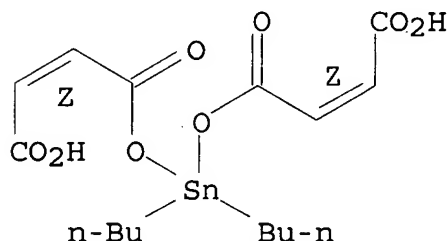
CC 39-15 (Synthetic Elastomers and Natural Rubber)

- ST talc blend **polyurethane elastomer** cap liner applicability
- IT Bottle caps
Sealing compositions
(cap sealing materials based on **polyurethane elastomer** compns. contg. granular thickeners)
- IT Polysiloxanes, uses
(cap sealing materials based on **polyurethane elastomer** compns. contg. granular thickeners)
- IT **Urethane rubber**, preparation
(polyester-polyoxyalkylene-; cap sealing materials based on **polyurethane elastomer** compns. contg. granular thickeners)
- IT **Urethane rubber**, preparation
(polyoxyalkylene-; cap sealing materials based on **polyurethane elastomer** compns. contg. granular thickeners)
- IT 112-80-1D, Oleic acid, bisamide, uses 112-84-5, Erucamide
6683-19-8, Irganox 1010
(cap sealing materials based on **polyurethane elastomer** compns. contg. granular thickeners)
- IT 3648-18-8, Dioctyltin dilaurate 191348-69-3, KS 1010A1
(catalyst; cap sealing materials based on **polyurethane elastomer** compns. contg. granular thickeners)
- IT 39751-34-3DP, polymers with polyols and polyisocyanates
(**rubber**, assumed monomers; cap sealing materials based on **polyurethane elastomer** compns. contg. granular thickeners)
- IT 25190-06-1DP, PTG 1000SN, polymers with polyols and polyisocyanates
58991-77-8DP, P 1010, polymers with polyols and polyisocyanates
81217-97-2DP, 1,3-Butanediol-HDI copolymer, polymers with polyols
81295-91-2DP, polymers with polyols 666185-39-3P
(**rubber**; cap sealing materials based on **polyurethane elastomer** compns. contg. granular thickeners)
- IT 7727-43-7, Barium sulfate 14807-96-6, Talc, uses
(thickener; cap sealing materials based on **polyurethane elastomer** compns. contg. granular thickeners)
- L32 ANSWER 5 OF 36 HCA COPYRIGHT 2005 ACS on STN
- 136:387284 Silica-reinforced **rubber** compounded with an alkoxy silane and a catalytic alkyl tin compound. Lin, Chen-Chy; Hergenrother, William L. (Bridgestone Corporation, USA). PCT Int. Appl. WO 2002038663 A1 20020516, 56 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SE, SG, SI, SL, TJ,

TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2000-US31023 20001109.

- AB A sulfur-vulcanizable **elastomeric** compd. comprises: an **elastomer** (e.g., SBR) optionally having an alkoxysilane terminal group; a reinforcing filler comprising silica or a mixt. thereof with carbon black; an alkyl alkoxysilane; a mercaptosilane silica coupling agent, wherein the wt. ratio of the mercaptosilane to the alkyl alkoxysilane is a max. of 0.14:1; a catalytic amt. of an alkyl tin compd.; and a cure agent comprising an effective amt. of sulfur to achieve a satisfactory cure. The compn. has improved tensile mech. properties and dynamic viscoelastic properties.
- IT 10192-92-4, Dibutyl tin dimaleate
(silica-reinforced **rubber** compounded with an alkoxysilane and a catalytic alkyl tin compd.)
- RN 10192-92-4 HCA
- CN 2-Butenoic acid, 4,4'-[(dibutylstannylene)bis(oxy)]bis[4-oxo-, (2Z,2'Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



- IC ICM C08K005-548
ICS C08K005-57; C08J003-24; B60C001-00; C08K003-36
- CC 39-9 (Synthetic Elastomers and Natural Rubber)
- ST alkyl tin catalyst silica reinforcement silane coupler **rubber**
- IT Silanes
(alkylalkoxy; silica-reinforced **rubber** compounded with an alkoxysilane and a catalytic alkyl tin compd.)
- IT Synthetic **rubber**, uses
(conjugated diene; silica-reinforced **rubber** compounded with an alkoxysilane and a catalytic alkyl tin compd.)
- IT Silanes
(mercapto-, coupling agent; silica-reinforced **rubber** compounded with an alkoxysilane and a catalytic alkyl tin compd.)
- IT Carbon black, uses
(reinforcing filler; silica-reinforced **rubber**

- compounded with an alkoxysilane and a catalytic alkyl tin compd.)
- IT Tires
(silica-reinforced **rubber** compounded with an alkoxysilane and a catalytic alkyl tin compd.)
- IT Natural **rubber**, uses
Rubber, uses
Styrene-butadiene **rubber**, uses
(silica-reinforced **rubber** compounded with an alkoxysilane and a catalytic alkyl tin compd.)
- IT 7631-86-9, Silica, uses
(reinforcing filler; silica-reinforced **rubber** compounded with an alkoxysilane and a catalytic alkyl tin compd.)
- IT 77-58-7, Dibutyltin dilaurate 301-10-0 818-08-6, Dibutyl tin oxide 10192-92-4, Dibutyl tin dimaleate 13355-96-9 23850-94-4, Butyl tin tris(2-ethylhexanoate) 336879-56-2
(silica-reinforced **rubber** compounded with an alkoxysilane and a catalytic alkyl tin compd.)
- IT 2943-75-1, Octyl triethoxysilane 14814-09-6, 3-Mercaptopropyltriethoxysilane
(silica-reinforced **rubber** compounded with an alkoxysilane and a catalytic alkyl tin compd.)
- IT 7704-34-9, Sulfur, reactions
(silica-reinforced **rubber** compounded with an alkoxysilane and a catalytic alkyl tin compd.)
- IT 9003-55-8
(styrene-butadiene **rubber**, silica-reinforced **rubber** compounded with an alkoxysilane and a catalytic alkyl tin compd.)

L32 ANSWER 6 OF 36 HCA COPYRIGHT 2005 ACS on STN

136:70746 Curable polysulfide-polyether compositions. Kimura, Kazushi (Yokohama Rubber Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002012765 A2 20020115, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-192628 20000627.

AB The compns. contain (A) polymers having .gtoreq.2 thiols, involving polyether segments (R1O)n (R1 = C2-4 alkylene; n = 6-200) and polysulfide segments (C2H4OCH2OCH2Sx) and [CH2CH(OH)CH2SxO] (x = 1-5) in the backbones, and terminated with C2H4OCH2OC2H4SH and/or CH2CH(OH)CH2SH, (B) compds. with .gtoreq.2 NCO, (C) org. amines and/or org. Sn compds., and (D) Cu2+ compds. The compns., suitable for sealing materials, give cured products with tack-free surface. Thus, a mixt. contg. 100 parts polysulfide-polyether (LP 282), 65 parts polyisocyanate (CP 132), 0.05 part Bu3N, 0.4 part dibutyltin dimaleate, 1.0 part CuCO3, 150 parts CaCO3, and other additives was molded to give a sheet, which was exposed at 20.degree. and humidity 55% for 1 day to show no residual tack on the surface.

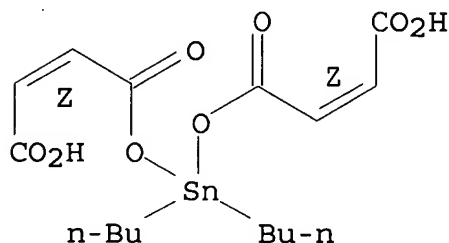
IT 10192-92-4, Dibutyltin dimaleate
(in curable polysulfide-polyether compns. giving tack-free

product)

RN 10192-92-4 HCA

CN 2-Butenoic acid, 4,4'-[(dibutylstannylene)bis(oxy)]bis[4-oxo-,
(2Z,2'Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IC ICM C08L081-04

ICS C08G018-52; C08K005-16; C08K005-57; C09K003-10

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 39

IT Polysulfide **rubber**

(polyether-, LP 282; curable polysulfide-polyether compns. giving tack-free product)

IT Synthetic **rubber**, uses

(polyether-polysulfide, LP 282; curable polysulfide-polyether compns. giving tack-free product)

IT 102-82-9, Tributylamine 1184-64-1, Cupric carbonate

10192-92-4, Dibutyltin dimaleate 13395-16-9, Copper(II)

acetylacetonate

(in curable polysulfide-polyether compns. giving tack-free product)

L32 ANSWER 7 OF 36 HCA COPYRIGHT 2005 ACS on STN

135:372928 Silica-reinforced **rubber** containing a monofunctional alkyl tin compound with good processability.

Hergenrother, William L.; Lin, Chen-Chy (Bridgestone Corporation, Japan). PCT Int. Appl. WO 2001088028 A1 20011122, 41 pp.

DESIGNATED STATES: W: CA, JP, US; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR. (English). CODEN:

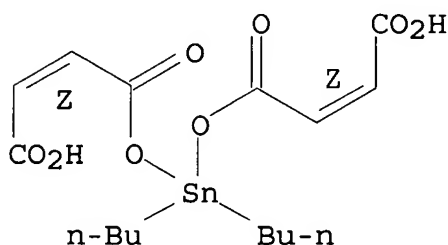
PIXXD2. APPLICATION: WO 2001-US15358 20010514. PRIORITY: US 2000-571087 20000515.

AB The invention relates generally to the use of processing aids to improve the dispersion of silica reinforcing filler in **rubber** compds. In particular, the invention relates to the use of a monofunctional alkyl tin compd. as a processing aid in the **rubber** compounding process. More particularly, the invention provides a vulcanizable **elastomeric** compn. and vulcanized **elastomeric** products, esp. pneumatic tire

treadstock that exhibits decreased rolling resistance, hysteresis, and improved snow, ice, and wet traction.

- IT 10192-92-4, Dibutyltin dimaleate
(silica-reinforced **rubber** contg. a monofunctional alkyl tin compd. with good processability)
- RN 10192-92-4 HCA
- CN 2-Butenoic acid, 4,4'-[(dibutylstannylene)bis(oxy)]bis[4-oxo-, (2Z,2'Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



- IC ICM C08K005-57
ICS C08K003-36; C08L021-00
- CC 39-9 (Synthetic Elastomers and Natural Rubber)
- ST silica reinforced **rubber** alkyl tin compd
- IT Tires
(silica-reinforced **rubber** contg. a monofunctional alkyl tin compd. with good processability)
- IT Carbon black, uses
(silica-reinforced **rubber** contg. a monofunctional alkyl tin compd. with good processability)
- IT Natural **rubber**, uses
Styrene-butadiene **rubber**, uses
(silica-reinforced **rubber** contg. a monofunctional alkyl tin compd. with good processability)
- IT 77-58-7, Dibutyltin dilaurate 2943-75-1, Octyl triethoxysilane
7631-86-9, Silica, uses 10192-92-4, Dibutyltin dimaleate
13355-96-9 23850-94-4, Butyltin tris-(2-ethylhexanoate)
336879-56-2
(silica-reinforced **rubber** contg. a monofunctional alkyl tin compd. with good processability)
- IT 7704-34-9, Sulfur, reactions
(silica-reinforced **rubber** contg. a monofunctional alkyl tin compd. with good processability)
- IT 9003-55-8
(styrene-butadiene **rubber**, silica-reinforced **rubber** contg. a monofunctional alkyl tin compd. with good processability)

L32 ANSWER 8 OF 36 HCA COPYRIGHT 2005 ACS on STN

133:136613 Manufacture of non-halogen fireproof and silane-crosslinked polyolefin compositions. Sugiyama, Masahiko (Yazaki Corp., Japan). Jpn. Kokai Tokkyo Koho JP 2000212291 A2 20000802, 15 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-20833 19990128.

AB Title compns. are prepd. by prepg. compns. (A) contg. metal hydroxides and silane-coupler-grafted polyolefins, prepg. compns. (B) contg. polyolefins, crosslinkers and catalysts, kneading A and B compns., and heat-crosslinking. Kneading A compn. contg. Engage 8440 100, Kisuma 5A 100, KBM 1003 1, and DCP 0.0 25 part and B compn. contg. Engage 8440 100, DCP 1.25, KS 1260 12.5 parts at A/B of 100:4 at 200.degree. gave a compn. showing good processability and forming void-free products.

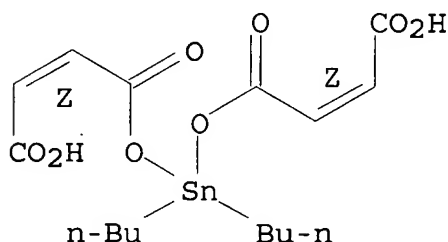
IT 10192-92-4

(manuf. of fireproof silane-crosslinked polyolefin **rubber** compns. for void-free products)

RN 10192-92-4 HCA

CN 2-Butenoic acid, 4,4'-[(dibutylstannylene)bis(oxy)]bis[4-oxo-, (2Z,2'Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IC ICM C08J003-24

ICS C08K003-22; C08L023-26

CC 39-9 (Synthetic Elastomers and Natural Rubber)

ST silane grafted polyolefin **rubber** thermal crosslinking kneading; fireproof silane crosslinked polyolefin **rubber** compn

IT Polyolefin **rubber**

(ethylene-octene, Engage 8440; manuf. of fireproof silane-crosslinked polyolefin **rubber** compns. for void-free products)

IT Coupling agents

Crosslinking catalysts

Fire-resistant materials

Kneading

(manuf. of fireproof silane-crosslinked polyolefin **rubber** compns. for void-free products)

IT Alkaline earth hydroxides

- Hydroxides (inorganic)
 (manuf. of fireproof silane-crosslinked polyolefin **rubber** compns. for void-free products)
- IT Nitrile **rubber**, uses
 (manuf. of fireproof silane-crosslinked polyolefin **rubber** compns. for void-free products)
- IT Silanes
 (manuf. of fireproof silane-crosslinked polyolefin **rubber** compns. for void-free products)
- IT Linear low density polyethylenes
 (**rubber**; manuf. of fireproof silane-crosslinked polyolefin **rubber** compns. for void-free products)
- IT 80-43-3, DCP 2212-81-9, 1,3-Bis(tert-butylperoxyisopropyl)benzene 4253-22-9 10192-92-4 15414-27-4 185915-28-0, KS 1260
 (manuf. of fireproof silane-crosslinked polyolefin **rubber** compns. for void-free products)
- IT 1309-42-8, Kisuma 5A
 (manuf. of fireproof silane-crosslinked polyolefin **rubber** compns. for void-free products)
- IT 78-08-0, Vinyltriethoxysilane 2768-02-7, Vinyltrimethoxysilane 5507-44-8, Vinylmethyldiethoxysilane 20151-57-9, Vinylphenyldimethoxysilane
 (manuf. of fireproof silane-crosslinked polyolefin **rubber** compns. for void-free products)
- IT 9003-18-3
 (nitrile **rubber**, manuf. of fireproof silane-crosslinked polyolefin **rubber** compns. for void-free products)
- IT 228566-38-9P
 (**rubber**, crosslinked; manuf. of fireproof silane-crosslinked polyolefin **rubber** compns. for void-free products)
- IT 1305-62-0, Calcium hydroxide, uses 14475-63-9, Zirconium hydroxide 17194-00-2, Barium hydroxide 21645-51-2, Aluminum hydroxide, uses
 (**rubber**; manuf. of fireproof silane-crosslinked polyolefin **rubber** compns. for void-free products)
- IT 9002-88-4, Polyethylene 9003-07-0, Polypropylene 9010-77-9, Acrylic acid-ethylene copolymer 9010-79-1, Ethylene-propene copolymer 9010-86-0, Ethylene-ethyl acrylate copolymer 24937-78-8, Ethylene-vinyl acetate copolymer 25053-53-6, Ethylene-methacrylic acid copolymer 25101-13-7, Ethylene-methyl methacrylate copolymer
 (**rubber**; manuf. of fireproof silane-crosslinked polyolefin **rubber** compns. for void-free products)
- L32 ANSWER 9 OF 36 HCA COPYRIGHT 2005 ACS on STN
 132:348845 Characterization and **antifungal** property of graft copolymer of chloroprene **rubber** and tributyltin methacrylate. Qian, Qingrong; Chen, Qinghua (Experimental Center,

Fujian Normal University, Fuzhou, Peop. Rep. China). Hecheng Xiangjiao Gongye, 23(2), 95-97 (Chinese) 2000. CODEN: HXGOEA. ISSN: 1000-1255. Publisher: Hecheng Xiangjiao Gongye Zazhi Bianjibu.

AB Graft copolymer of chloroprene **rubber** and tributyltin methacrylate was characterized by IR, ¹H-NMR, TGA, TEM and SEM. The **antifungal** activity tests showed that the copolymer had good fungal inhibition, and could be used as a retarder of fungi related rot and mildew.

IT **187615-12-9P**, Chloroprene-tributyltin methacrylate graft copolymer

(characterization and **antifungal** property of)

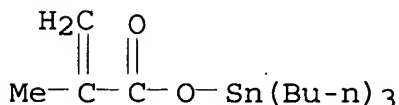
RN 187615-12-9 HCA

CN Stannane, tributyl[(2-methyl-1-oxo-2-propenyl)oxy]-, polymer with 2-chloro-1,3-butadiene, graft (9CI) (CA INDEX NAME)

CM 1

CRN 2155-70-6

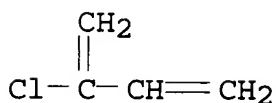
CMF C16 H32 O2 Sn



CM 2

CRN 126-99-8

CMF C4 H5 Cl



CC 39-12 (Synthetic Elastomers and Natural Rubber)

Section cross-reference(s): 10, 38

ST **antifungal** graft copolymer chloroprene tributyltin methacrylate; morphol graft copolymer chloroprene tributyltin methacrylate

IT **Fungicides**

(chloroprene-tributyltin methacrylate graft copolymer)

IT **187615-12-9P**, Chloroprene-tributyltin methacrylate graft copolymer

(characterization and **antifungal** property of)

L32 ANSWER 10 OF 36 HCA COPYRIGHT 2005 ACS on STN

128:89573 Foamable compositions containing azodicarboxylic acid diesters as foaming agents. Takao, Toshitomo; Aburaya, Nobuyuki; Miki, Toru; Kanekawa, Masato (Otsuka Chemical Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 09328568 A2 19971222 Heisei, 17 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1996-358140 19961226. PRIORITY: JP 1995-352541 19951228; JP 1996-113170 19960409.

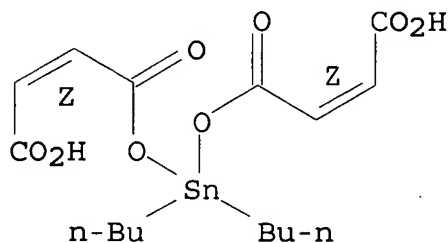
AB Title foamable compns. comprise an org. or inorg. material and azodicarboxylic acid diester ROOCN:NCOOR (R = lower alkyl, Ph, benzyl) as foaming agent. Foamed material of plastics, **rubbers**, and gypsum and cement can be produced from the compns.

IT 10192-92-4, Dibutyltin dimaleate
(decompn. promoter; foamable compns. contg. azodicarboxylic acid diesters as foaming agents)

RN 10192-92-4 HCA

CN 2-Butenoic acid, 4,4'-[(dibutylstannylene)bis(oxy)]bis[4-oxo-, (2Z,2'Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown..



IC ICM C08J009-06

ICS C04B038-02; C04B038-10; C07C281-02; C09K003-00; C08L101-00

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 38, 58

ST azodicarboxylate foaming agent; plastic foam azodicarboxylate foaming agent; **rubber** foam azodicarboxylate foaming agent; construction foam azodicarboxylate foaming agent

IT Silicone **rubber**, uses

(KE 1404; foamable compns. contg. azodicarboxylic acid diesters as foaming agents)

IT **Polyurethanes**, preparation

(foam; foamable compns. contg. azodicarboxylic acid diesters as foaming agents)

IT 77-58-7, TN 12 136-53-8, Zinc 2-ethylhexanoate 143-18-0, Potassium oleate 557-05-1, Zinc stearate 1072-35-1, Lead stearate 1314-13-2, Zinc oxide, uses 3572-47-2, Dioctyltin sulfide 10192-92-4, Dibutyltin dimaleate 24308-84-7, Zinc benzenesulfinate 28553-12-0, Diisononyl phthalate

(decompn. promoter; foamable compns. contg. azodicarboxylic acid diesters as foaming agents)

IT 9002-86-2, Polyvinyl chloride 9002-88-4, Sumikathene G 201
 9002-89-5, Polyvinyl alcohol 9003-20-7, Movinyl 303 9003-22-9,
 Vinyl acetate-vinyl chloride copolymer 9004-62-0,
 Hydroxyethylcellulose 9016-87-9, Polymeric MDI 29407-84-9,
 Epikote 815 71061-23-9, Mowinyl DM 21 138988-80-4, Mowinyl 937
 148264-40-8, Voncoat 3981 201098-00-2, Polylyte FH 123S
 201098-04-6, Mowinyl 933H 201098-20-6, **Rubber** Coat Jumbo
 Hi-Cross

(foamable compns. contg. azodicarboxylic acid diesters as foaming agents)

L32 ANSWER 11 OF 36 HCA COPYRIGHT 2005 ACS on STN

128:62673 Vulcanizable **rubber** compositions. Kawasaki, Masaaki; Furukawa, Junji; Nakahama, Hidetoshi; Tojo, Tetsuo (Mitsui Petrochemical Industries, Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 09309979 A2 19971202 Heisei, 9 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1996-128176 19960523.

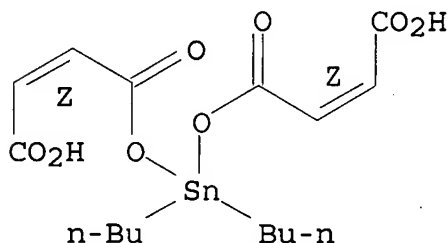
AB **Rubber** compns. for providing molded products with good adhesion to **polyurethane** coatings comprise (1) 100 parts of a **rubber** selected from natural and synthetic **rubbers**, (2) 0.01-10 parts of an organotin compd. and/or a tertiary amine, (3) 0.5-20 parts of a hydroxy-contg. polymer, and (4) 20-200 parts of a metal hydroxide.

IT 10192-92-4, Dibutyltin dimaleate
 (vulcanizable **rubber** compns.)

RN 10192-92-4 HCA

CN 2-Butenoic acid, 4,4'-[(dibutylstannylene)bis(oxy)]bis[4-oxo-, (2Z,2'Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IC ICM C08L021-00

ICS C08K003-22; C08K005-17; C08K005-57; C08L023-16; C08L021-00;
 C08L101-06

CC 39-9 (Synthetic Elastomers and Natural Rubber)

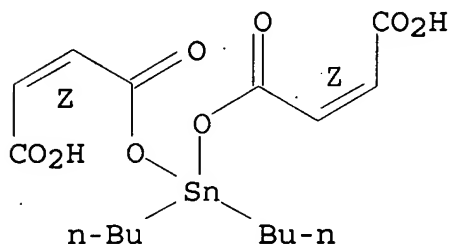
ST **rubber** EPDM vulcanizable coating adhesion

IT Carbon black, uses

- (Asahi 60HG; vulcanizable **rubber** compns.)
- IT Paraffin oils
(Sunflex 2280; vulcanizable **rubber** compns.)
- IT EPDM **rubber**
(ethylene-ethylidenenorbornene-propene; vulcanizable **rubber** compns.)
- IT Natural **rubber**, properties
(vulcanizable **rubber** compns.)
- IT 25038-36-2, Ethylene-5-ethylidene-2-norbornene-propylene copolymer
(**rubber**; vulcanizable **rubber** compns.)
- IT 77-58-7, Dibutyltin dilaurate 280-57-9, 1,4-Diazabicyclo[2.2.2]octane 10192-92-4, Dibutyltin dimaleate 16091-18-2D, Dioctyltin maleate, polymers
(vulcanizable **rubber** compns.)
- IT 1309-42-8, Kisuma 5B
(vulcanizable **rubber** compns.)
- IT 87913-10-8, Polytail H 109075-98-1, Ethylene-2-hydroxyethyl methacrylate-propylene graft copolymer
(vulcanizable **rubber** compns.)
- L32 ANSWER 12 OF 36 HCA COPYRIGHT 2005 ACS on STN
- 127:308336 Hardenable compositions of polymer including thiol groups containing polyisocyanates as vulcanizers. Echigoya, Yukishige; Sakae, Kazuhisa (Toray Thiokol K. K., Japan). Jpn. Kokai Tokkyo Koho JP 09255753 A2 19970930 Heisei, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1996-93462 19960322.
- AB Title compns. with good storage stability, useful for sealing materials, comprise polymers contg. .gtoreq.2 SH, polyisocyanates contg. .gtoreq.2 NCO, hardening catalysts comprising tertiary amines and/or org. metals, and vulcanization accelerators and/or S. Thus, 800 g polypropylene glycol (prepd. from propylene glycol and propylene oxide, OH-value 55.3) was treated with 87.7 g epichlorohydrin at 80-90.degree. for 3 h, with 887.7 g Thiokol LP55 (polysulfide polymer) and 76 g 70%-NaSH at 80.degree. for 2 h, and then with 7.1 g 50%-citric acid to obtain a polymer contg. 2.0% SH, 100 parts of which was mixed with diheptyl phthalate 55.59, CaCO3 233.9, N,N-di(polyoxyethylene)stearylamine 0.01, dibutyltin dimaleate 0.4, and Nocceler TET (tetraethylthiuram disulfide) 0.1 part. The compn. (390 parts) was mixed, immediately after the prepn. and after 1 wk at 50.degree., resp., with 64 parts a **urethane** prepolymer (prepd. from polypropylene glycol and xylene diisocyanate) to give hardened product with pot life 4.0 and 3.8 h (35.degree.), M50 (50%-tensile modulus) 12 and 12 N/cm2, tensile strength 52 and 42 N/cm2, and elongation 603 and 500%, resp.
- IT 10192-92-4, Dibutyltin dimaleate
(crosslinking catalysts; curable **rubber** compn. contg. thiol-contg. polymers and polyisocyanates with storage stability)
- RN 10192-92-4 HCA

CN 2-Butenoic acid, 4,4'-[(dibutylstannylene)bis(oxy)]bis[4-oxo-,
(2Z,2'Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

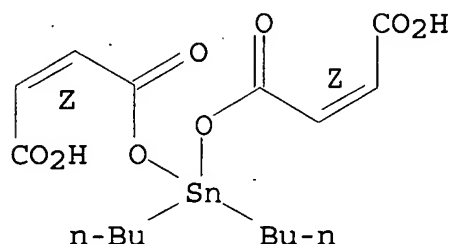


- IC ICM C08G018-52
ICS C08K005-29; C08L081-02
- CC 39-10 (Synthetic Elastomers and Natural Rubber)
- ST thiol contg polymer hardenable compn; polyisocyanate crosslinking agent thiol contg polymer; storage stability polysulfide **rubber** crosslinking agent; polypropylene glycol epichlorohydrin copolymer **rubber**; sodium hydrosulfide copolymer **rubber** polyisocyanate vulcanizer; tertiary amine crosslinking catalyst polysulfide **rubber**; org metal crosslinking catalyst polysulfide **rubber**; sulfur vulcanization accelerator polysulfide **rubber**
- IT Polysulfide **rubber**
(Thiokol LP55; curable **rubber** compn. contg. thiol-contg. polymers and polyisocyanates with storage stability)
- IT Crosslinking agents
Vulcanization accelerators and agents
(curable **rubber** compn. contg. thiol-contg. polymers and polyisocyanates with storage stability)
- .IT Polysulfide **rubber**
Polysulfide **rubber**
Synthetic **rubber**, preparation
Synthetic **rubber**, preparation
(epichlorohydrin-polypropylene glycol-sodium hydrosulfide; curable **rubber** compn. contg. thiol-contg. polymers and polyisocyanates with storage stability)
- IT Amides, uses
Amides, uses
Sulfenyl compounds
Sulfenyl compounds
(sulfenamides, vulcanization accelerators; curable **rubber** compn. contg. thiol-contg. polymers and polyisocyanates with storage stability)
- IT 10192-92-4, Dibutyltin dimaleate 26635-92-7, Poly(ethylene oxide) stearylamine diether

- (crosslinking catalysts; curable **rubber** compn. contg. thiol-contg. polymers and polyisocyanates with storage stability)
- IT 155207-31-1P
(**rubber**; curable **rubber** compn. contg. thiol-contg. polymers and polyisocyanates with storage stability)
- IT 97-77-8, Nocceler TET 137-26-8, Nocceler TT 594-07-0D, Dithiocarbamic acid, salts 1634-02-2, Nocceler TBT 7704-34-9, Sulfur, uses 62652-52-2, Tetraoctylthiuram disulfide (vulcanization accelerators; curable **rubber** compn. contg. thiol-contg. polymers and polyisocyanates with storage stability)
- IT 54786-28-6P
(vulcanizers; curable **rubber** compn. contg. thiol-contg. polymers and polyisocyanates with storage stability)
- L32 ANSWER 13 OF 36 HCA COPYRIGHT 2005 ACS on STN
127:82615 Anisotropically electrically conductive films with good storage stability, adhesion properties, and moisture resistance. Kobayashi, Michio (Sumitomo Bakelite Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 09165435 A2 19970624 Heisei, 5 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1995-326074 19951214.
- AB Title films, which show good adhesive strength over wide range of temps., comprise (A) poly(vinyl butyrals) with d.p. 1500-2500, acetylation rate .ltoreq.3 mol%, butyral rate .gtoreq.65 mol%, and flow softening temp. .gtoreq.200.degree., (B) epoxy resins, (C) **polyurethane**-microencapsulated curing agents, (D) organotin compds., and (E) elec. conductive powders. The films are useful in bonding <0.05 mm-pitch microcircuits at a low temp. in a short time. Thus, pulverized adduct of 2 mol 2-ethyl-4-methylimidazole with 1 mol bisphenol A diglycidyl ether was dispersed in hexane and treated with MDI to give microencapsulated hardener, 40 parts of which was mixed in AcOEt/MePh with poly(vinyl butyral) (d.p. 1700, acetylation rate .ltoreq.3 mol%, butyral rate .gtoreq.65 mol%, flow softening temp. 225.degree.) 25, high-mol. wt. bisphenol A epoxy resin (epoxy equiv. 4000) 25, low-mol. wt. bisphenol A epoxy resin (epoxy equiv. 200) 80, Sn octylate 0.5, and elec. conductive powders (polystyrene beads coated with Ni and overcoated with Au) 4 parts. The mixt. was applied on a perfluoroalkyl vinyl ether-tetrafluoroethylene copolymer film and dried, and the thus obtained anisotropically elec. conductive film was used to adhere TAB (tape automated bonding) package with ITO glass at 30 kg/cm² and 150.degree. for 30 s to show adhesion strength 800 g/cm and connecting resistivity 1.8 .OMEGA. initially, and 710 g/cm and 2.4 .OMEGA. after exposed to moisture at 85.degree./85% relative humidity for 500 h.
- IT 10192-92-4, Dibutyltin dimaleate
(curing catalyst; anisotropically elec. conductive films with good storage stability, adhesion properties, and moisture resistance for bonding elec. parts)

RN 10192-92-4 HCA
 CN 2-Butenoic acid, 4,4'-[(dibutylstannylene)bis(oxy)]bis[4-oxo-,
 (2Z,2'Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

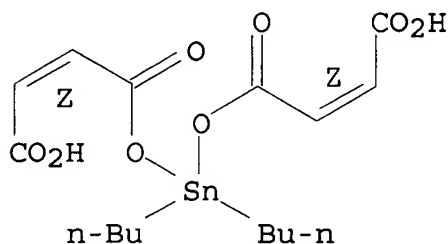


IC ICM C08G059-18
 ICS C08J005-18; C08L029-14; C09J007-00; C09J163-00; H01B001-20;
 H01R004-04; H05K001-14; C08G059-40; C08L063-00
 CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 39, 76
 ST anisotropy elec conductive film epoxy resin; polyvinyl butyral film
 anisotropy elec conductive; **polyurethane**
 microencapsulation crosslinker adhesive storage stability; tin
 octylate microencapsulated crosslinker conductive film; nickel gold
 elec anisotropy adhesive film
 IT **Polyurethanes**, uses
 (curing catalysts microencapsulated with; anisotropically elec.
 conductive films with good storage stability, adhesion
 properties, and moisture resistance for bonding elec. parts)
 IT Crosslinking catalysts
 (microencapsulated with **polyurethanes**; anisotropically
 elec. conductive films with good storage stability, adhesion
 properties, and moisture resistance for bonding elec. parts)
 IT Synthetic **rubber**, uses
 (polyvinyl butyrals; anisotropically elec. conductive films with
 good storage stability, adhesion properties, and moisture
 resistance for bonding elec. parts)
 IT Polyvinyl butyrals
 (reactive **elastomers**; anisotropically elec. conductive
 films with good storage stability, adhesion properties, and
 moisture resistance for bonding elec. parts)
 IT 4288-15-7, Tin octylate 10192-92-4, Dibutyltin dimaleate
 (curing catalyst; anisotropically elec. conductive films with
 good storage stability, adhesion properties, and moisture
 resistance for bonding elec. parts)

organometallic compounds as curing catalysts for polythiourethanes. Haruta, Kyoko; Matsumoto, Michiyoshi; Echigoya, Yukishige; Eiichi, Hisashi (Toray Thiokol K. K., Japan). Jpn. Kokai Tokkyo Koho JP 09110957 A2 19970428 Heisei, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1995-292016 19951013.

- AB Title compns. comprise polymers contg. .gtoreq.2 thiols, compds. contg. .gtoreq.2 NCO, and curing catalysts consisting of .gtoreq.1 tertiary amines and .gtoreq.1 organometallic compds. Thus, a polymer obtained from polypropylene glycol, epichlorohydrin, and Thiokol LP 55, diheptyl phthalate, CaCO₃, TiO₂, polypropylene glycol-xylene diisocyanate adduct, N,N-dipolyoxyethylene stearylamine, and dibutyltin bismaleate were mixed, applied on an Al sheet, and cured to give a test piece showing tensile strength 1.2 kg/cm³ and elongation 630%.
- IT 10192-92-4, Dibutyltin dimaleate
(tertiary amines and organometallic compds. as curing catalysts for polythiourethanes)
- RN 10192-92-4 HCA
- CN 2-Butenoic acid, 4,4'-[(dibutylstannylene)bis(oxy)]bis[4-oxo-, (2Z,2'Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



- IC ICM C08G018-38
ICS C08G018-18; C08G018-22; C08G018-52
- CC 42-10 (Coatings, Inks, and Related Products)
- IT Polysulfide **rubber**
(polythiourethanes, Thiokol LP 55; tertiary amines and organometallic compds. as curing catalysts for polythiourethanes)
- IT **Polyurethanes**, uses
(thio-; tertiary amines and organometallic compds. as curing catalysts for polythiourethanes)
- IT 100-74-3, N-Ethylmorpholine 280-57-9, Triethylenediamine
10192-92-4, Dibutyltin dimaleate 26635-92-7,
N,N-Bis(polyoxyethylene)stearylamine 107119-91-5, LA 62
(tertiary amines and organometallic compds. as curing catalysts for polythiourethanes)

126:186492 Studies of free radical grafting copolymerization of neoprene and tributyltin methacrylate. Qian, Qingrong; Wu, Yuanhui (Experimental Center, Fujian Teacher's Univ., Fuzhou, 350007, Peop. Rep. China). Fujian Shifan Daxue Xuebao, Ziran Kexueban, 12(3), 54-58 (Chinese) 1996. CODEN: FSDKES. ISSN: 1000-5277. Publisher: Fujian Shifan Daxue Xuebao Bianjibu.

AB Graft copolymn. of tributyltin methacrylate (I) onto neoprene **rubber** in benzene with benzoyl peroxide as initiator was studied. Neoprene-tributyltin methacrylate graft copolymer was isolated from the copolymn. products by extg. with anhyd. alc. and characterized by FTIR and ¹H-NMR. The percentage of grafting and grafting efficiency under different exptl. conditions were calcd. Suitable grafting conditions were: reaction temp. 70.degree., neoprene **rubber**-I wt. ratio 2:1, and reaction time .apprx.5 h. The graft copolymer showed **antifungal** activity.

IT 187615-12-9P, Chloroprene-tributyltin methacrylate graft copolymer (prepn. and characterization and antimicrobial activity of neoprene **rubber**-tributyltin methacrylate graft copolymer)

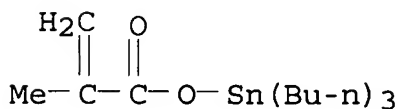
RN 187615-12-9 HCA

CN Stannane, tributyl[(2-methyl-1-oxo-2-propenyl)oxy]-, polymer with 2-chloro-1,3-butadiene, graft (9CI) (CA INDEX NAME)

CM 1

CRN 2155-70-6

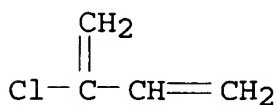
CMF C16 H32 O2 Sn



CM 2

CRN 126-99-8

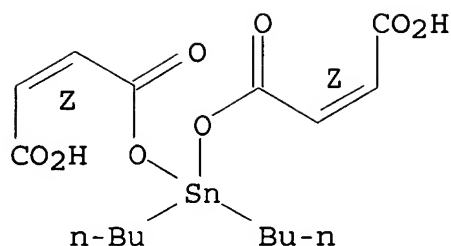
CMF C4 H5 Cl



CC 35-8 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 39, 63

- ST neoprene **rubber** tributyltin methacrylate graft polymn;
benzoyl peroxide graft polymn catalyst
- IT Polymerization catalysts
(graft; benzoyl peroxide; prepn. of neoprene **rubber**
-tributyltin methacrylate graft copolymer in presence of)
- IT **Fungicides**
(prepn. and characterization and antimicrobial activity of
neoprene **rubber**-tributyltin methacrylate graft
copolymer)
- IT 94-36-0, Benzoyl peroxide, uses
(catalysts; prepn. of neoprene **rubber**-tributyltin
methacrylate graft copolymer in presence of)
- IT **187615-12-9P**, Chloroprene-tributyltin methacrylate graft
copolymer
(prepn. and characterization and antimicrobial activity of
neoprene **rubber**-tributyltin methacrylate graft
copolymer)
- L32 ANSWER 16 OF 36 HCA COPYRIGHT 2005 ACS on STN
- 123:171473 Thermoplastic polymer molding compositions with excellent
thermal stability and weld strength. Okuzono, Toshiaki; Fukaya,
Yoshio; Pponda, Noriaki (Mitsubishi Gas Chemical Co., Japan). Jpn.
Kokai Tokkyo Koho JP 07053858 A2 19950228 Heisei, 5 pp. (Japanese).
CODEN: JKXXAF. APPLICATION: JP 1993-197459 19930809.
- AB The compns., useful for building materials, automobile, electronic,
and machine parts, contain 100 parts (30-70):(70-30)
polyoxyphenylene-polyamide blends, 0-20 parts impact modifiers, and
0.1-15 parts org. Sn maleates. Thus, polyoxyphenylene 35, Kraton
G1651 (styrene-ethylene-butylene-styrene block copolymer) 7, and
dibutyltin maleate 3 parts were melt kneaded with 65 parts Amilan CM
1017 and 0.2 part N,N'-hexamethylenebis[3,5-di(tert-butyl)-4-
hydroxyhydrocinnamide], and injection molded to give test pieces
showing av. notched Izod impact strength (ASTM D256) 120, and 110
J/m, initially, and after annealing at 160.degree. for 100 h in an
oven, resp.
- IT **10192-92-4**, Dibutyltin dimaleate
(compatibilizers; thermoplastic polymer molding compns. with
excellent thermal stability and weld strength)
- RN 10192-92-4 HCA
- CN 2-Butenoic acid, 4,4'-[(dibutylstannylene)bis(oxy)]bis[4-oxo-,
(2Z,2'Z) - (9CI) (CA INDEX NAME)

Double bond geometry as shown.



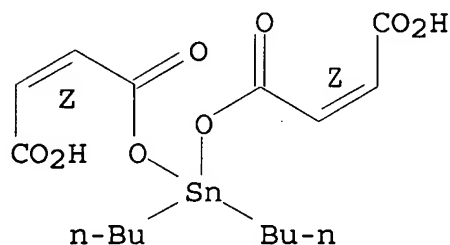
- IC ICM C08L071-12
ICS C08L071-12; C08K005-57; C08L077-00
- CC 37-6 (Plastics Manufacture and Processing)
- IT **Rubber**, butadiene-styrene, uses
(hydrogenated, block, triblock, Kraton G1651, impact modifiers; thermoplastic polymer molding compns. with excellent thermal stability and weld strength)
- IT 78-04-6D, Dibutyltin maleate, polymers 6995-92-2
10192-92-4, Dibutyltin dimaleate 16091-18-2D, Dioctyltin maleate, polymers 17036-31-6 29881-72-9 51815-13-5
51815-14-6 51815-15-7, Dibutyltin (laurate) (methyl maleate)
51815-16-8 51815-17-9 167307-97-3
(compatibilizers; thermoplastic polymer molding compns. with excellent thermal stability and weld strength)
- IT 106107-54-4 694491-73-1
(**rubber**, hydrogenated, block, triblock, Kraton G1651, impact modifiers; thermoplastic polymer molding compns. with excellent thermal stability and weld strength)
- L32 ANSWER 17 OF 36 HCA COPYRIGHT 2005 ACS on STN
- 117:214650 Primer composition containing an organometallic compound for binding substrates with a cyanoacrylate adhesive. Ito, Kenji; Kimura, Kaoru (Toa Gosei Chemical Industry Co., Ltd., Japan). U.S. US 5110392 A 19920505, 12 pp. Cont.-in-part of U.S. Ser. No. 219,815, abandoned. (English). CODEN: USXXAM. APPLICATION: US 1990-518657 19900503. PRIORITY: JP 1983-87761 19830520; JP 1983-228323 19831205; JP 1984-59367 19840329; US 1984-611691 19840518; US 1986-899800 19860825; US 1988-219815 19880714.
- AB Polyolefin, polyfluoroolefin, PET, polyacetal, nylon, or PVC plastisol articles are bonded together or to other substrates by application of a solvent-based primer contg. organometallic compd. 0.001-10%, and an .alpha.-cyanoacrylate adhesive. A soln. of 1 g Al isopropylate in 99 g PhMe was painted onto 2 polyethylene films and air dried. The two films were bonded together with Aron Alpha 201 adhesive showing tensile bond strength (JIS K6861-1977) 41 kg/cm2 (av. of 3), vs. 13 kg/cm2 without primer.
- IT 10192-92-4, Dibutyltin dimaleate
(coupling agent, for bonding plastics using cyanoacrylate)

adhesives)

RN 10192-92-4 HCA

CN 2-Butenoic acid, 4,4'-[(dibutylstannylene)bis(oxy)]bis[4-oxo-,
(2Z,2'Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IC ICM C09J005-04

INCL 156314000

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 38

IT **Rubber**, synthetic

(EPDM, bonding of, with cyanoacrylate adhesive, organometallic coupling agent for)

IT 123-93-3D, aluminum complexes 139-12-8, Aluminum acetate
 301-10-0, Stannous 2-ethylhexanoate 367-57-7,
 Trifluoroacetylacetone 546-68-9, Tetraisopropyltitanate
 555-36-2, Ferric stearate 557-04-0, Magnesium stearate 591-65-1
 593-29-3, Potassium stearate 629-25-4, Sodium laurate 637-12-7,
 Aluminum stearate 638-39-1 688-37-9, Oleic acid aluminum salt
 822-17-3, Sodium linoleate 1067-33-0, Dibutyltindiacetate
 1072-35-1, Lead stearate 1592-23-0, Calcium stearate 2601-98-1,
 Magnesium palmitate 3264-82-2 5593-70-4, Tetrabutyltitanate
 5921-01-7 6865-35-6, Barium stearate 7429-90-5D, Aluminum,
 complexes thiodiglycolic acid 7439-95-4D, Magnesium, naphthenic
 acid salt **10192-92-4**, Dibutyltin dimaleate 10210-64-7
 12084-29-6 12193-47-4 13395-16-9 13963-57-0, Aluminum
 trisacetylacetonate 14024-56-7 14024-63-6 14219-90-0
 14405-45-9 15306-17-9 15435-71-9, Sodium acetylacetone
 17501-44-9 18115-70-3 19372-44-2 21679-46-9 23272-52-8,
 Cobalt palmitate 25267-66-7 34202-30-7 105078-81-7
 144306-03-6

(coupling agent, for bonding plastics using cyanoacrylate adhesives)

IT 74-85-1

(rubber, EPDM, bonding of, with cyanoacrylate adhesive, organometallic coupling agent for)

116:236873 Anticorrosive and impact-resistant poly(vinyl chloride)-based compositions. Nishimura, Masakazu; Watanabe, Rikuo (Kubota, Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 04018442 A2 19920122 Heisei, 5 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1990-122415 19900510.

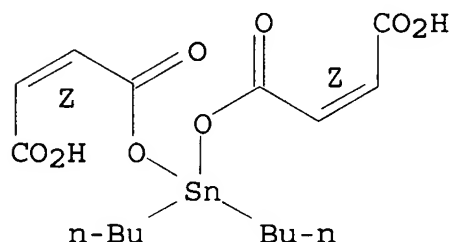
AB Title compns., useful for pipes in bridges, etc., with improved salt spray resistance, contain Sn laurate- and/or Sn maleate-type stabilizers and acrylic **rubbers**. Thus, a compn. of PVC 100, dibutyltin dilaurate (I) 1.0, dibutyltin dimaleate (II) 1.0, HIA 28 (III) 5.0, and a lubricant 1.0 part was roll-kneaded at 185.degree. and press-molded to give a plate showing retention of impact strength and mech. properties after long-term salt spraying test.

IT 10192-92-4, Dibutyltin dimaleate
(stabilizers, for PVC contg. acrylic **rubbers**, with resistance to impact and salt spray)

RN 10192-92-4 HCA

CN 2-Butenoic acid, 4,4'-[(dibutylstannylene)bis(oxy)]bis[4-oxo-, (2Z,2'Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IC ICM C08L027-06

ICS C08K005-57

CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 39

ST polyvinyl chloride salt spray resistance; impact resistance PVC anticorrosive; tin laurate stabilizer PVC anticorrosive; acrylic **rubber** tin maleate PVC

IT Impact-resistant materials
(PVC, contg. tin laurate and/or maleate stabilizers and acrylic **rubbers**, with salt spray resistance)

IT Corrosion inhibitors
(tin laurate and/or maleate, for PVC contg. acrylic **rubbers**, with impact resistance)

IT **Rubber**, synthetic
(acrylic, PVC contg. tin stabilizers and, HIA 28F, with resistance to impact and salt spray)

IT 9002-86-2, Poly(vinyl chloride)

(contg. tin laurate and/or maleate and acrylic rubbers, with resistance to impact and salt spray)

IT 77-58-7, Dibutyltin dilaurate 10192-92-4, Dibutyltin dimaleate

(stabilizers, for PVC contg. acrylic rubbers, with resistance to impact and salt spray)

L32 ANSWER 19 OF 36 HCA COPYRIGHT 2005 ACS on STN

114:208880 Solvent-resistant silicone oil primers for adhesives for rubber and plastic products. Murachi, Tatsuya (Toyoda Gosei Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 02261883 A2 19901024 Heisei, 5 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1989-83025 19890331.

AB Primers with good resistance to solvent impregnation to adherends comprise Me H silicone oils 100, curing agents [e.g., dibutyltin dilaurate (I)] 0.01-5, halogenating agents (e.g., Me₃COCl) 0.002-20, and metal salts of phenols 0.001-5 parts. Thus, 100 parts Me H silicone oil with kinematic viscosity 10,000 cSt was mixed with I 0.01, Me₃COCl 0.002, and PhONa 0.001 part to give a primer. Sep., poly(butylene adipate) 200, 4,4'-diphenylmethane diisocyanate 100, trichloroethylene 300, and DMF 300 parts were heated at 80.degree. to give an urethane prepolymer, which was treated with 12.2 parts ethylene glycol to give an adhesive. Then, a polyethylene (II) foam was coated with the above-described primer, left at room temp. for 10 min, coated with the above-described adhesive, then bonded with another II foam precoated with the primer at 25 .times. 25 mm adhesion area, then left at room temp. for 3 days to give a test piece, which showed tensile shear strength (50 mm/min) after 1 h in gasoline 25.1 kg/cm².

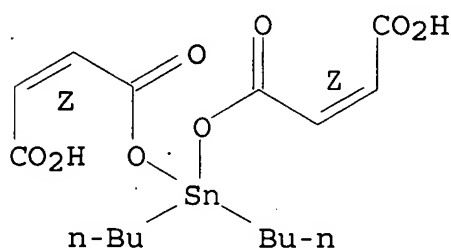
IT 10192-92-4, Dibutyltin dimaleate 15571-60-5

(catalysts, for curing silicone oil adhesive primers)

RN 10192-92-4 HCA

CN 2-Butenoic acid, 4,4'-[(dibutylstannylene)bis(oxy)]bis[4-oxo-, (2Z,2'Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

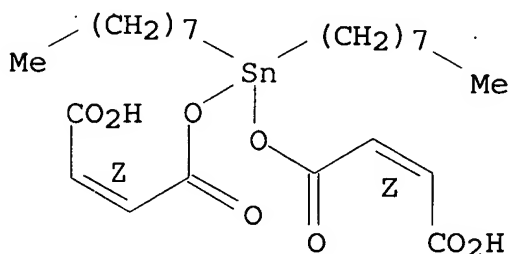


RN 15571-60-5 HCA

CN 2-Butenoic acid, 4,4'-[(dioctylstannylene)bis(oxy)]bis[4-oxo-,

(2Z,2'Z) - (9CI) (CA INDEX NAME)

Double bond geometry as shown.



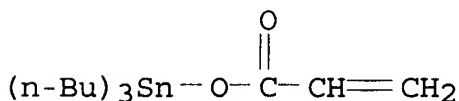
- IC ICM C09J183-05
ICS C08J005-12
- CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 42
- ST silicone oil primer **polyurethane** adhesive; phenol salt
silicone oil adhesive; solvent resistant silicone oil adhesive;
polyester **polyurethane** adhesive; polyethylene foam
adhesive primer; polyadipate **polyurethane** adhesive;
butanediol polyester **polyurethane** adhesive; ethylene
glycol polyester **polyurethane** adhesive; hypochlorite ester
silicone primer adhesive; crosslinking catalyst silicone primer
adhesive; halogenating agent silicone primer adhesive
- IT **Rubber**, natural, uses and miscellaneous
 Rubber, synthetic
 (adhesives for, silicone oil primers for)
- IT Siloxanes and Silicones, uses and miscellaneous
 (Me hydrogen, adhesive primers, solvent-resistant, contg. curing
 agents and halogenating agents and phenol salts, for plastics and
 rubbers)
- IT **Urethane** polymers, uses and miscellaneous
 (polyester-, block, adhesives, primers for, silicone oil compns.
 as)
- IT Adhesives
 (solvent-resistant, primers for, Me H silicone oil compns. contg.
 curing agents and halogenating agents and phenol salts as, for
 rubbers and plastics)
- IT 77-58-7, Dibutyltin dilaurate 557-05-1, Zinc stearate 2452-01-9,
Zinc laurate 3648-18-8, Dioctyltin dilaurate 10192-92-4,
Dibutyltin dimaleate 15571-60-5 126750-61-6
 (catalysts, for curing silicone oil adhesive primers)

L32 ANSWER 20 OF 36 HCA COPYRIGHT 2005 ACS on STN

113:8222 Compositions for complex protection of wood. Kreitus, A.;
Minina, O. V.; Videneeva, O. Yu.; Veretennikova, I. A.; Kol'tsova,

T. Ya.; Andreev, V. S.; Kireev, V. V. (USSR). *Plasticheskie Massy* (1), 82-7 (Russian) 1990. CODEN: PLMSAI. ISSN: 0554-2901.

- AB In an effort to improve the **fungicidal** effectiveness, fire resistance, and weathering of wood preservative coating Kofadeks-1 (I), the effect of various additives, such as Sn-contg. polyacrylate, siloxanes, silicone **rubber**, Br- or F- or P-contg. org. compds., NH_4BF_4 , H_3BO_3 , Ammo-Phos (II), cyanuric acid (III), or cyanurate group-contg. epoxy resins, on the properties of I was studied. The best results were attained by using III as an additive, or by combining several additives, such as silicone **rubber** and P-contg. org. compds., siloxanes and H_3BO_3 , F-contg. org. compds. and II, or Br-contg. org. compds. and II.
- IT **28653-36-3**, Poly(tributyltin acrylate)
(wood preservative coatings contg.)
- RN 28653-36-3 HCA
- CN Stannane, tributyl[(1-oxo-2-propenyl)oxy]-, homopolymer (9CI) (CA INDEX NAME)
- CM 1
- CRN 13331-52-7
- CMF C15 H30 O2 Sn



- CC 43-2 (Cellulose, Lignin, Paper, and Other Wood Products)
- IT **Rubber**, silicone, uses and miscellaneous
(di-Me, wood preservatives contg. SKTN-G)
- IT 108-80-5, 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione 10043-35-3, Boric acid (H_3BO_3), uses and miscellaneous 12735-97-6, Ammo-Phos 13826-83-0, Ammonium tetrafluoroborate **28653-36-3**, Poly(tributyltin acrylate) 127537-44-4 127537-46-6
(wood preservative coatings contg.)
- IT 127464-35-1, Kofadeks 1
(wood preservative coatings, additives for improvement of **fungicidal** effectiveness and fire resistance and weathering of)
- L32 ANSWER 21 OF 36 HCA COPYRIGHT 2005 ACS on STN
- 103:124471 Halogen-containing polymer compositions. (Nippon Oils & Fats Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 60063244 A2 19850411 Showa, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1983-171764 19830917:
- AB Transparent title compns. with good thermal stability and lubricity during processing are composed of halo-contg. polymers 100, a

40-90:10-60 mixt. of Ca and Zn soaps of C20-24 aliph. monocarboxylic acids 0.05-1, and org. Sn deriv. stabilizers 0.5-5 parts. Thus, a compn. of Geon 103EP-8 (PVC) [9002-86-2] 100, T 17MJ [75139-29-6] (a butyltin mercaptide) 1.2, and Ca-Zn (50:50) salts of hardened rape oil fatty acids (65% behenic acid) 0.4 part could be kneaded on mixing rolls at 185-190.degree. for up to 33 min before becoming difficult to peel off, forming a transparent sheet, vs. 18 min using a 30:70 Ca-Zn soap mixt.

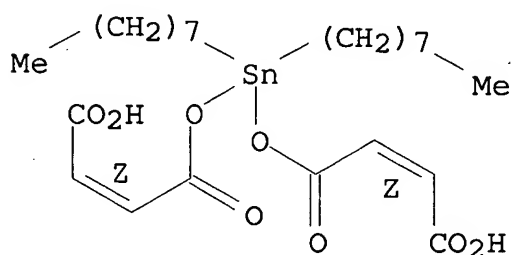
IT 15571-60-5

(heat stabilizers, with calcium-zinc soap lubricants, for halogen-contg. polymers)

RN 15571-60-5 HCA

CN 2-Butenoic acid, 4,4'-[(dioctylstannylene)bis(oxy)]bis[4-oxo-, (2Z,2'Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IC ICM C08L027-00

ICS C08K005-09; C08K005-57; C08L023-28

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 45

IT Molding of plastics and **rubbers**

(calendering, of halogen-contg. polymer compns., lubricating heat stabilizers for)

IT 15571-60-5 75139-29-6 98444-25-8

(heat stabilizers, with calcium-zinc soap lubricants, for halogen-contg. polymers)

L32 ANSWER 22 OF 36 HCA COPYRIGHT 2005 ACS on STN

101:112079 Resin compositions adhering to **polyurethane**

coatings. (Japan Synthetic Rubber Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 59047250 A2 19840316 Showa, 4 pp. (Japanese).

CODEN: JKXXAF. APPLICATION: JP 1982-158177 19820913.

AB The title compns. are prepd. by blending 0.1-10 parts organotin compds. with 100 parts **rubber**-reinforced thermoplastic resins comprising copolymers obtained by grafting **rubber**-like polymers with arom. vinyl compds. or their mixts. with .gtoreq.1 other vinyl compd(s). Coated **polyurethane** films

on moldings prepd. from the compns. have excellent chem. resistance and do not debond during drying of the films. Thus, a polybutadiene latex (JSRO 700) 25 (as solids), styrene 50, acrylonitrile 25, terpinolene 0.3, disproportionated K rosinat 2.0, and ion-exchanged water 150 parts were mixed and heated to 45.degree. under N; adding a soln. of dextrose 0.35, Na pyrophosphate 0.3, and FeSO₄ 0.01 parts in 300 parts ion-exchanged water, then adding 0.35 part cumene hydroperoxide, and graft-polymg. the mixt. at 70.degree. for 2 h gave a graft polymer (I) [9003-56-9] latex. Adding 1.0 part BHT, coagulating by adding 2 parts H₂SO₄, sepg., washing with water, dewatering, and drying gave I, to which (100 parts) was added 1 part Bu₂Sn dimaleate [10192-92-4]. Mixing, pelletizing at 220.degree., and injection molding at 220.degree. gave a test piece. The piece was spray coated with a **polyurethane** coating (Ureol 600 [91825-58-0]) and dried to give a chem. resistant film.

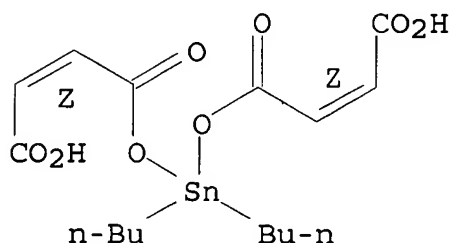
IT 10192-92-4

(ABS resin moldings contg., with improved receptance for **polyurethane** coatings)

RN 10192-92-4 HCA

CN 2-Butenoic acid, 4,4'-[(dibutylstannylene)bis(oxy)]bis[4-oxo-, (2Z,2'Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IC C08L051-04; C08K005-57; C09D003-727

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 37, 42

ST ABS resin **polyurethane** coating; acrylonitrile copolymer **polyurethane** coating; butadiene copolymer

polyurethane coating; styrene copolymer **polyurethane**

coating; tin org ABS molding; alkanolate butyltin ABS molding

IT Coating materials

(**polyurethanes**, tin compd.-contg. ABS resin moldings adhering to)

IT 77-58-7 10192-92-4

(ABS resin moldings contg., with improved receptance for **polyurethane** coatings)

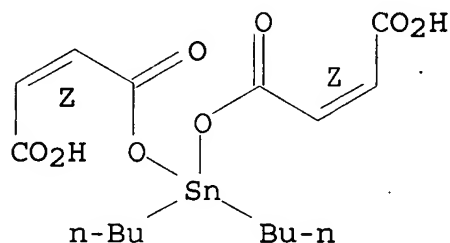
IT 9003-56-9

(graft, moldings, with improved receptance for

polyurethane coatings)

- L32 ANSWER 23 OF 36 HCA COPYRIGHT 2005 ACS on STN
 98:64169 Semiconductor device. (Hitachi, Ltd., Japan). Jpn. Kokai
 Tokkyo Koho JP 57154840 A2 19820924 Showa, 4 pp. (Japanese).
 CODEN: JKXXAF. APPLICATION: JP 1981-39384 19810320.
- AB A silicone contg. a OH terminated organopolysiloxane,
 diorganopolysiloxane with .gtoreq.3 alkoxy groups, and metal org.
 acid salt contg. virtually no halogen compds. is used for
 passivating a p-n junction of a semiconductor device (e.g., a
 varistor).
- IT 10192-92-4
 (for silicone **rubber** for passivation of semiconductor
 devices)
- RN 10192-92-4 HCA
- CN 2-Butenoic acid, 4,4'-[(dibutylstannylene)bis(oxy)]bis[4-oxo-,
 (2Z,2'Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



- IC H01L021-312; H01L023-30
- CC 76-3 (Electric Phenomena)
- IT Vulcanization accelerators
 (carboxylates, for silicone **rubber** for passivationing
 semiconductor devices)
- IT **Rubber**, silicone, uses and miscellaneous
 (for passivation of semiconductor devices, vulcanization
 accelerators for)
- IT Electric resistors
 (silicone **rubber** for passivating)
- IT Semiconductor devices
 (silicone **rubber** for passivating, vulcanization
 accelerators for)
- IT Semiconductor junctions
 (p-n, silicone **rubber** for passivating)
- IT 77-58-7 4731-77-5 10192-92-4
 (for silicone **rubber** for passivation of semiconductor
 devices)

L32 ANSWER 24 OF 36 HCA COPYRIGHT 2005 ACS on STN

98:55600 Nonreactive resins in UV/EB formulations. Nowak, Michael T. (Litton Ind., USA). Radiation Curing, 9(3), 29-30, 32-6 (English) 1982. CODEN: RACUDO. ISSN: 0146-4604.

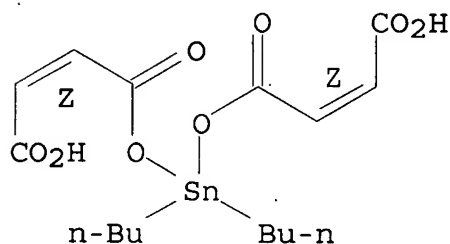
AB Solubilities of nonreactive polyvinyl butyral, styrene-acrylate, epoxy, **polyurethane**, styrene-butadiene, chlorinated **rubber**, polyamide, polyester, rosin ester, etc., resins in vinyl acetate [108-05-4], vinylpyrrolidone [88-12-0], and trimethylolpropane triacrylate [9004-39-1] monomers are given. The soly. data is used to formulate UV/electron beam-curable coatings, i.e., low-viscosity, gravure-applied moisture vapor barriers for paper packaging; white pigmentless coatings; inks; and release coatings for the Formica process. Use of UV-initiated sulfolene crosslinking catalyst and promotion of adhesion of UV-curable systems to Al are discussed.

IT 10192-92-4
(stabilizers, for radiation-curable coatings and inks, resin soly. in relation to)

RN 10192-92-4 HCA

CN 2-Butenoic acid, 4,4'-[(dibutylstannylene)bis(oxy)]bis[4-oxo-, (2Z,2'Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



CC 42-1 (Coatings, Inks, and Related Products)

IT **Rubber**, chlorinated

Rubber, cyclized

Rubber, urethane, uses and miscellaneous

(radiation-curable coatings contg., soly. of)

IT 10192-92-4

(stabilizers, for radiation-curable coatings and inks, resin soly. in relation to)

L32 ANSWER 25 OF 36 HCA COPYRIGHT 2005 ACS on STN

95:170813 Blends of polymers and bituminous material. Weeks, Brian (British Petroleum Co. Ltd., UK). Eur. Pat. Appl. EP 31245 19810701, 16 pp. (English). CODEN: EPXXDW. APPLICATION: EP 1980-304588 19801218.

AB Compns. contg. a Cl-contg. synthetic **rubber**, a bituminous

material (softening point >80.degree., asphaltene content >25% wt.), and a dialkyltin deriv. of a dicarboxylate acid, e.g. dioctyltin dimaleate (I) [15571-60-5] show increased brittle temp. before annealing and a low increase in brittle temp. after annealing. The compns. are useful for the prepn. of roofing sheets. Thus, a compn. contg. chlorosulfonated polyethylene **rubber** 50, chlorinated polyethylene **rubber** 50, bituminous material (softening point 120.degree., 36% asphaltene) 85, carbon black 40, octadecylamine 0.5, oleamide 0.5, and I 0.5 part had brittle temp. -20.degree. before annealing and -17.5.degree. after annealing, compared with -20 and -12.5, resp., for a compn. without I.

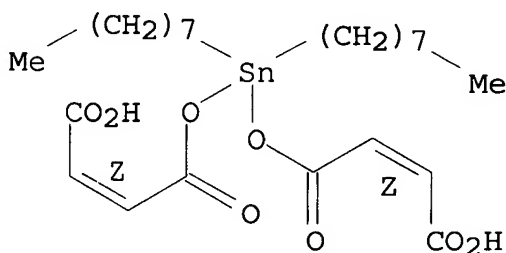
IT 15571-60-5

(heat stabilizers, for bituminous material-chlororubber roofing compns.)

RN 15571-60-5 HCA

CN 2-Butenoic acid, 4,4'-[(dioctylstannylene)bis(oxy)]bis[4-oxo-, (2Z,2'Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IC C08L095-00; C08L023-26; C08K005-57

CC 38-15 (Elastomers, Including Natural Rubber)

ST bituminous compn roofing sheet; chlororubber compn roofing sheet; tin maleate heat stabilizer; chlorinated polyethylene **rubber** blend; chlorosulfonated polyethylene **rubber** blend; roofing sheet **rubber** compn

IT **Rubber**, synthetic

(chlorinated polyethylene-bituminous material roofing compns. contg., heat stabilizers for)

IT **Rubber**, synthetic

(chlorosulfonated polyethylene, chlorinated polyethylene bituminous material roofing compns. contg., heat stabilizers for)

IT 15571-60-5

(heat stabilizers, for bituminous material-chlororubber roofing compns.)

IT 9002-88-4D, chlorinated

(**rubber**, bituminous roofing compns. contg., heat

stabilizers for)

L32 ANSWER 26 OF 36 HCA COPYRIGHT 2005 ACS on STN

90:105020 Methyl methacrylate-grafted neoprene **rubber**

adhesives having good storage stability. Kita, Atsushi; Sakanaka, Yasuhiro; Shimizu, Akihiko (Toyo Soda Mfg. Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 53132040 19781117 Showa, 7 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1977-46888 19770425.

AB Vinyl compds. are grafted on neoprene **rubber**, and the products and 0.005-1 wt.% organotin compds. are dissolved in org. solvents to give adhesives having good storage stability. Thus, a mixt. of neoprene **rubber** 100, Me methacrylate 90, dibutyltin dilaurate (I) [77-58-7] 0.03, PhMe 600, and Bz2O2 1.0 part was heated 6 h at 80.degree. to give graft copolymer (II). When the II soln. after 1 day or 1 mo of storage at 23.degree. was mixed with Desmodur RF and kept 6 h at 23.degree., the viscosity increased from 4520 to 42,000 or from 4540 to 47,000 cP, resp., compared with from 4600 to 37,000 or from 2100 to 12,200, resp. for a similar II prepd. without I.

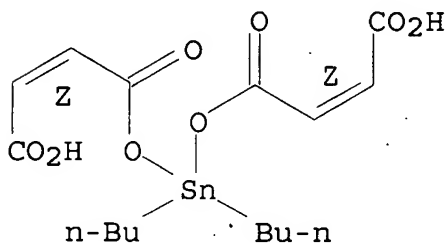
IT 10192-92-4 15571-60-5

(stabilizers, for Me methacrylate-grafted neoprene **rubber** adhesives during storage)

RN 10192-92-4 HCA

CN 2-Butenoic acid, 4,4'-[(dibutylstannylene)bis(oxy)]bis[4-oxo-, (2Z,2'Z) - (9CI) (CA INDEX NAME)

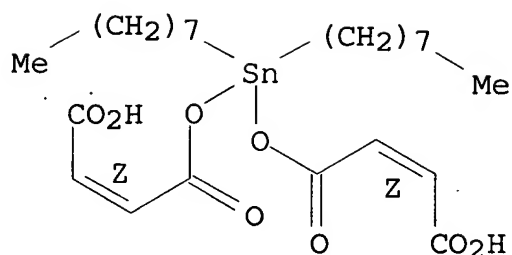
Double bond geometry as shown.



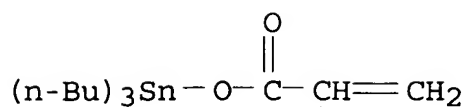
RN 15571-60-5 HCA

CN 2-Butenoic acid, 4,4'-[(dioctylstannylene)bis(oxy)]bis[4-oxo-, (2Z,2'Z) - (9CI) (CA INDEX NAME)

Double bond geometry as shown.



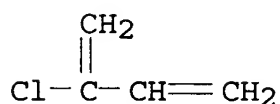
- IC C09J003-12
 CC 36-6 (Plastics Manufacture and Processing)
 ST neoprene **rubber** graft copolymer; methacrylate grafting
 neoprene **rubber**; organotin compd storage stabilizer;
 adhesive neoprene **rubber** graft; polyisocyanate
 crosslinking agent
 IT Adhesives
 (Me methacrylate-grafted neoprene **rubber**, stabilizers
 for, dibutyltin compds. as)
 IT 80-62-6D, polymer with neoprene **rubber** 108-05-4D,
 polymer with Me methacrylate and neoprene **rubber**
 (graft, adhesives, stabilizers for, dibutyltin compds. as)
 IT 77-58-7 1185-81-5 4253-22-9 10192-92-4
 15571-60-5 26761-46-6
 (stabilizers, for Me methacrylate-grafted neoprene **rubber**
 adhesives during storage)
- L32 ANSWER 27 OF 36 HCA COPYRIGHT 2005 ACS on STN
 89:198845 **Antifungal** sealing rings: a new approach. Dunn,
 P.; Oldfield, D. (Mater. Res. Lab., Dep. Def., Australia). *Plastics
 and Rubber: Materials and Applications*, 3(3), 87-96 (English) 1978.
 CODEN: PRMAD9. ISSN: 0307-9414.
- AB Neoprene, nitrile, and EPDM **rubbers** were graft copolymd.
 with tributyltin acrylate in the presence of peroxides to yield
 compns. for the prepn. of **antifungal** O-rings which were
 tested as seals for 2 metals, 7 plastics, and glass.
- IT 68224-18-0 68224-19-1
 (graft, **rubber**, **antifungal** sealing rings
 from)
- RN 68224-18-0 HCA
 CN Stannane, tributyl[(1-oxo-2-propenyl)oxy]-, polymer with
 2-chloro-1,3-butadiene (9CI) (CA INDEX NAME)
- CM 1
- CRN 13331-52-7
 CMF C15 H30 O2 Sn



CM 2

CRN 126-99-8

CMF C4 H5 Cl



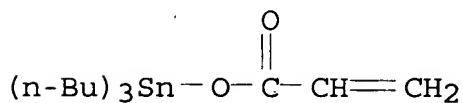
RN 68224-19-1 HCA

CN 2-Propenenitrile, polymer with 1,3-butadiene and tributyl[(1-oxo-2-propenyl)oxy]stannane (9CI) (CA INDEX NAME)

CM 1

CRN 13331-52-7

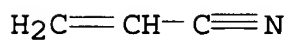
CMF C15 H30 O2 Sn



CM 2

CRN 107-13-1

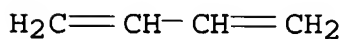
CMF C3 H3 N



CM 3

CRN 106-99-0

CMF C4 H6



CC 38-4 (Elastomers, Including Natural Rubber)
 ST **antifungal rubber** sealing rings; tributyltin
 acrylate graft **rubber**; neoprene **rubber**
 tributyltin graft; nitrile **rubber** tributyltin graft; EPDM
rubber tributyltin graft; tin acrylate **antifungal**
 polymer
 IT Glass, oxide
 Polycarbonates
 Polyesters, uses and miscellaneous
 (sealing rings for, **antifungal**, from tributyltin
 acrylate-grafted **rubbers**)
 IT Sealing compositions
 (tributyltin acrylate-grafted **rubbers**)
 IT **Rubber**, neoprene, uses and miscellaneous
Rubber, nitrile, uses and miscellaneous
 (tributyltin acrylate-grafted, **antifungal** sealing
 rings)
 IT **Rubber**, synthetic
 (EPDM, tributyltin acrylate-grafted, **antifungal** sealing
 rings)
 IT Seals (mechanical)
 (O-rings, tributyltin acrylate-grafted **rubbers**)
 IT **Rubber**, synthetic
 (acrylonitrile-butadiene-tributyltin acrylate, tributyltin
 acrylate-grafted, **antifungal** sealing rings)
 IT **Rubber**, synthetic
 (chloroprene-tributyltin acrylate, tributyltin acrylate-grafted,
antifungal sealing rings)
 IT 68224-18-0 68224-19-1
 (graft, **rubber**, **antifungal** sealing rings
 from)
 IT 9010-98-4
 (**rubber**, neoprene; tributyltin acrylate-grafted,
antifungal sealing rings)
 IT 9003-18-3
 (**rubber**, nitrile; tributyltin acrylate-grafted,
antifungal sealing rings)
 IT 9002-86-2 9003-56-9 9011-14-7 11099-20-0 12597-68-1, uses
 and miscellaneous 25035-04-5 25587-80-8
 (sealing rings for, **antifungal**, from tributyltin
 acrylate-grafted **rubbers**)

L32 ANSWER 28 OF 36 HCA COPYRIGHT 2005 ACS on STN

88:192402 **Antifungal** sealing rings - a new approach. Dunn,
 P.; Oldfield, D. (Mater. Res. Lab., Ascot Vale, Australia). U. S.
 NTIS, AD Rep., AD-A047009, 37 pp. Avail. NTIS From: Gov. Rep.
 Announce. Index (U. S.) 1978, 78(4), 176 (English) 1977. CODEN:

XADRCH. ISSN: 0099-8575.

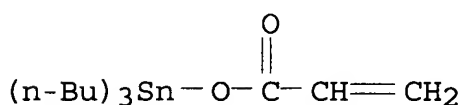
AB Neoprene, nitrile and EPDM **rubbers** covulcanized with tributyltin acrylate [13331-52-7] in the presence of peroxides to give vulcanizates with a powerful and long-lasting **fungicidal** action.

IT 13331-52-7

(covulcanization of, with **rubbers**, for **antifungal** activity)

RN 13331-52-7 HCA

CN Stannane, tributyl[(1-oxo-2-propenyl)oxy] - (9CI) (CA INDEX NAME)



IT 28653-36-3

(**fungicides**, for **rubbers**)

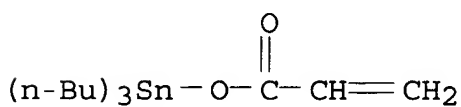
RN 28653-36-3 HCA

CN Stannane, tributyl[(1-oxo-2-propenyl)oxy]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 13331-52-7

CMF C15 H30 O2 Sn



CC 38-9 (Elastomers, Including Natural Rubber)

ST **antifungal rubber** sealing rings; butyltin acrylate **antifungal rubber**

IT **Rubber**, neoprene, uses and miscellaneous

Rubber, nitrile, uses and miscellaneous

(**fungicides** for, poly(tributyltin acrylate) as)

IT **Fungicides** and Fungistats

(poly(tributyltin acrylate), for **rubbers**)

IT Seals (mechanical)

(**rubber**, **antifungicidal**, contg.

poly(tributyltin acrylate))

IT **Rubber**, synthetic

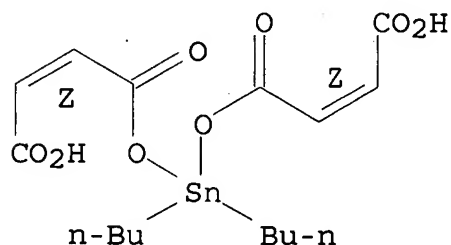
(EPDM, **fungicides** for, poly(tributyltin acrylate) as)

IT 13331-52-7

(covulcanization of, with **rubbers**, for **antifungal** activity)

- IT 28653-36-3
(fungicides, for rubbers)
- IT 9010-98-4
(rubber, neoprene; fungicides for,
poly(tributyltin acrylate) as)
- IT 9003-18-3
(rubber, nitrile; fungicides for,
poly(tributyltin acrylate) as)
- L32 ANSWER 29 OF 36 HCA COPYRIGHT 2005 ACS on STN
- 85:47915 1-Chlorobutadiene-butadiene copolymerized **rubber**. 1.
Synthesis and properties of 1-chlorobutadiene-butadiene
rubber with high chlorine content. Yamashita, Shinzo;
Kohjiya, Shinzo; Yamada, Akira; Kawakita, Yukio (Dep. Chem., Kyoto
Inst. Technol., Kyoto, Japan). Nippon Gomu Kyokaishi, 49(5), 409-14
(Japanese) 1976. CODEN: NGOKAF. ISSN: 0029-022X.
- AB Butadiene (<70 wt.%) and >30 wt.% 1-chlorobutadiene (I) were polymd.
in emulsion systems at 50 or 15.degree. to give copolymer (II)
[50601-78-0] which contained large amts. of gel. The II contg.
large amts. of I units had poor heat stability with differential
scanning calorimetry exotherm peak at 145.degree.. Some of the
metal soap and organotin compd. heat stabilizers for PVC were useful
for II. The II could be vulcanized with S or with vulcanizing
agents for neoprene **rubber**, among which
2-mercaptoimidazoline [96-46-8]-Pb304 combination were the most
effective vulcanizing agents. The II was vulcanized very quickly
with ordinary S vulcanizing agents. The vulcanized II had increased
oil resistance and glass-transition temp. (by dynamic loss) with
increasing I units.
- IT 10192-92-4
(heat stabilizers, for butadiene-chlorobutadiene **rubber**
)
- RN 10192-92-4 HCA
- CN 2-Butenoic acid, 4,4'-[(dibutylstannylene)bis(oxy)]bis[4-oxo-,
(2Z,2'Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



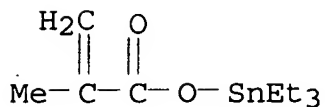
CC 38-12 (Elastomers, Including Natural Rubber)

- ST chlorobutadiene butadiene **rubber** property; heat stability
chlorobutadiene copolymer; vulcanization chlorobutadiene copolymer
- IT **Rubber**, synthetic
(butadiene-chlorobutadiene, prepn. and properties of
high-chlorine)
- IT Heat stabilizers
(dibutyltin compds. or stearate salts, for butadiene-
chlorobutadiene **rubber**)
- IT Vulcanizing agents
(lead oxide-mercaptoimidazoline, for butadiene-chlorobutadiene
rubber)
- IT 77-58-7 1592-23-0 7428-48-0 **10192-92-4**
(heat stabilizers, for butadiene-chlorobutadiene **rubber**
)
- IT 50601-78-0P
(**rubber**, prepn. and properties of high-chlorine)
- IT 96-45-7
(vulcanizing agents, contg. lead oxide, for butadiene-
chlorobutadiene **rubber**)
- IT 1314-41-6
(vulcanizing agents, contg. mercaptoimidazoline, for
butadiene-chlorobutadiene **rubber**)
- L32 ANSWER 30 OF 36 HCA COPYRIGHT 2005 ACS on STN
- 84:61248 Use of organotin polymers in nonfouling paints. Rozhkov, Yu.
P.; Frost, E. I.; Sinel'nikova, N. R.; Gennik, N. M. (Leningr.
Filial, Gos. Nauchno-Issled. Proektn. Inst. Lakokras. Prom.,
Leningrad, USSR). Lakokrasochnye Materialy i Ikh Primenenie (5),
37-9 (Russian) 1975. CODEN: LAMAAD. ISSN: 0130-9013.
- AB Poly(trimethyltin methacrylate) (I) [27900-60-3],
poly(triethyltin methacrylate) (II) [25915-91-7],
poly(tributyltin methacrylate) (III) [26354-15-4], and
tributyltin methacrylate-vinyl acetate copolymer (IV) [
26354-17-6] can be used as binders for marine coatings.
Usually, I-IV are added to conventional binders, such as A-15-0
[50642-25-6], A-15 [9003-22-9] (vinyl polymers), or E-41
[11126-36-6] (epoxy resin). The paint compns. may also include
natural or synthetic **rubbers** and rosin which slow down the
rate of I-II hydrolysis in water and the decrease of their
antifungal activity. Coatings contg. I-IV last over 2 yr in
sea water without being attacked by marine organisms.
- IT 25915-91-7 26354-15-4 26354-17-6
27900-60-3
(antifouling marine coatings contg.)
- RN 25915-91-7 HCA
- CN Stannane, triethyl[(2-methyl-1-oxo-2-propenyl)oxy]-, homopolymer
(9CI) (CA INDEX NAME)

CM 1

CRN 15238-97-8

CMF C10 H20 O2 Sn



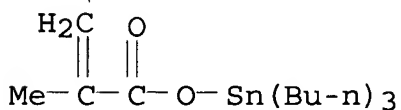
RN 26354-15-4 HCA

CN Stannane, tributyl[(2-methyl-1-oxo-2-propenyl)oxy]-, homopolymer
(9CI) (CA INDEX NAME)

CM 1

CRN 2155-70-6

CMF C16 H32 O2 Sn



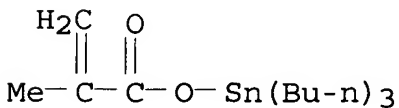
RN 26354-17-6 HCA

CN Acetic acid ethenyl ester, polymer with tributyl[(2-methyl-1-oxo-2-propenyl)oxy]stannane (9CI) (CA INDEX NAME)

CM 1

CRN 2155-70-6

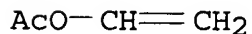
CMF C16 H32 O2 Sn



CM 2

CRN 108-05-4

CMF C4 H6 O2



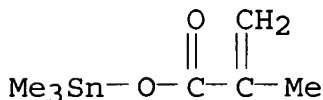
RN 27900-60-3 HCA

CN Stannane, trimethyl[(2-methyl-1-oxo-2-propenyl)oxy]-, homopolymer
(9CI) (CA INDEX NAME)

CM 1

CRN 15238-96-7

CMF C7 H14 O2 Sn



CC 42-2 (Coatings, Inks, and Related Products)

IT 25915-91-7 26354-15-4 26354-17-6

27900-60-3

(antifouling marine coatings contg.)

L32 ANSWER 31 OF 36 HCA COPYRIGHT 2005 ACS on STN

83:133586 Trialkyltin-substituted polymers. (Australia, Commonwealth of, Australia). Neth. Appl. NL 7309239 19740108, 17 pp. (Dutch).
CODEN: NAXXAN. APPLICATION: NL 1973-9239 19730703.

AB Microorganism-resistant polymers for coatings contg. CO₂SnPr₃ or CO₂SnBu₃ sidegroups were prepd. from the corresponding unsatd. Bu₃Sn or Pr₃Sn esters or by modification of polymers of unsatd. acids. Thus, Bu₃Sn acrylate 72, styrene 11.6, acrylonitrile 10.6, azobisisobutyronitrile 0.94, and AcOH 0.09 g were refluxed 5 hr in CHCl₃ and freed of solvent, giving a hard, brittle, solid polymer (I) [56148-34-6]. I 23, chlorinated rubber 32, tricresyl phosphate 10, Cu oxide red 280, ZnO 16, thixotropic agent 1, xylene 120, and iso-BuCOMe 12 g were ball milled 12 hr, and sprayed on a primed, sand-blasted steel plate, giving a coating which resisted visible contamination by microorganisms and showed only slight mold growth during 12 months seawater immersion near Melbourne, Australia.

IT 26354-15-4D, Stannane, tributyl[(2-methyl-1-oxo-2-propenyl)oxy]-, homopolymer, hydrolyzed 30444-62-3
56148-33-5 56148-34-6 56148-36-8
56148-37-9 56148-38-0 56148-39-1

(coatings, with improved antifouling properties)

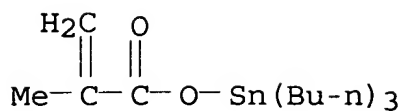
RN 26354-15-4 HCA

CN Stannane, tributyl[(2-methyl-1-oxo-2-propenyl)oxy]-, homopolymer
(9CI) (CA INDEX NAME)

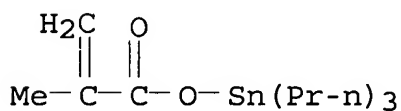
CM 1

CRN 2155-70-6

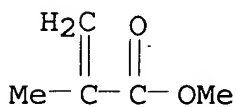
CMF C16 H32 O2 Sn



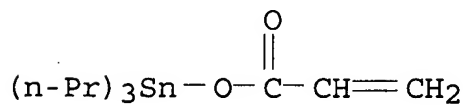
RN 30444-62-3 HCA
 CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
 [(2-methyl-1-oxo-2-propenyl)oxy]tripropylstannane (9CI) (CA INDEX
 NAME)
 CM 1
 CRN 4154-35-2
 CMF C13 H26 O2 Sn



CM 2
 CRN 80-62-6
 CMF C5 H8 O2



RN 56148-33-5 HCA
 CN Acetic acid ethenyl ester, polymer with [(1-oxo-2-
 propenyl)oxy]tripropylstannane (9CI) (CA INDEX NAME)
 CM 1
 CRN 4588-58-3
 CMF C12 H24 O2 Sn



CM 2

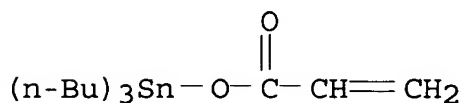
CRN 108-05-4
CMF C4 H6 O2



RN 56148-34-6 HCA
CN 2-Propenenitrile, polymer with ethenylbenzene and
tributyl[(1-oxo-2-propenyl)oxy]stannane (9CI) (CA INDEX NAME)

CM 1

CRN 13331-52-7
CMF C15 H30 O2 Sn



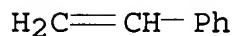
CM 2

CRN 107-13-1
CMF C3 H3 N



CM 3

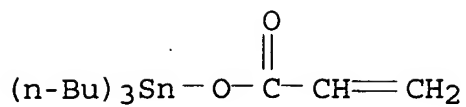
CRN 100-42-5
CMF C8 H8



RN 56148-36-8 HCA
CN 2-Propenoic acid, polymer with ethenylbenzene and
tributyl[(1-oxo-2-propenyl)oxy]stannane (9CI) (CA INDEX NAME)

CM 1

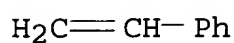
CRN 13331-52-7
CMF C15 H30 O2 Sn



CM 2

CRN 100-42-5

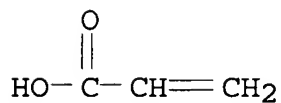
CMF C8 H8



CM 3

CRN 79-10-7

CMF C3 H4 O2



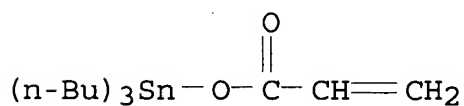
RN 56148-37-9 HCA

CN Acetic acid ethenyl ester, polymer with tributyl[(1-oxo-2-propenyl)oxy]stannane (9CI) (CA INDEX NAME)

CM 1

CRN 13331-52-7

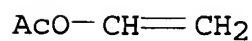
CMF C15 H30 O2 Sn



CM 2

CRN 108-05-4

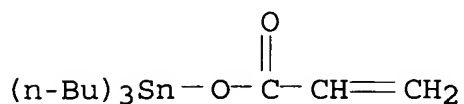
CMF C4 H6 O2



RN 56148-38-0 HCA
CN 2-Propenoic acid, polymer with tributyl[(1-oxo-2-propenyl)oxy]stannane (9CI) (CA INDEX NAME)

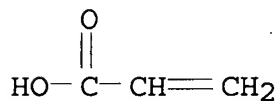
CM 1

CRN 13331-52-7
CMF C15 H30 O2 Sn



CM 2

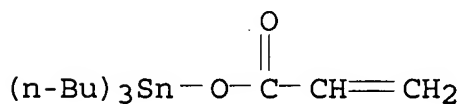
CRN 79-10-7
CMF C3 H4 O2



RN 56148-39-1 HCA
CN Acetic acid ethenyl ester, polymer with 2,5-furandione and tributyl[(1-oxo-2-propenyl)oxy]stannane (9CI) (CA INDEX NAME)

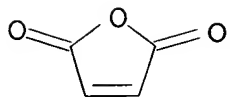
CM 1

CRN 13331-52-7
CMF C15 H30 O2 Sn



CM 2

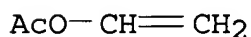
CRN 108-31-6
CMF C4 H2 O3



CM 3

CRN 108-05-4

CMF C4 H6 O2



IT 56148-40-4

(graft, coatings, with improved antifouling properties)

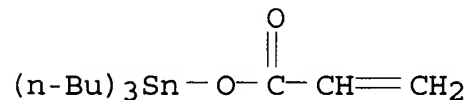
RN 56148-40-4 HCA

CN Stannane, tributyl[(1-oxo-2-propenyl)oxy]-, polymer with chloroethene (9CI) (CA INDEX NAME)

CM 1

CRN 13331-52-7

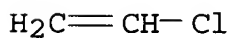
CMF C15 H30 O2 Sn



CM 2

CRN 75-01-4

CMF C2 H3 Cl



IC C08G; C09D

CC 42-10 (Coatings, Inks, and Related Products)

IT Bactericides, Disinfectants and Antiseptics

(tributyltin acrylate polymers, as coating materials)

IT 26354-15-4D, Stannane, tributyl[(2-methyl-1-oxo-2-propenyl)oxy]-, homopolymer, hydrolyzed 30444-62-3

56148-32-4 56148-33-5 56148-34-6

56148-36-8 56148-37-9 56148-38-0

56148-39-1 56274-09-0

(coatings, with improved antifouling properties)

IT 56148-40-4

(graft, coatings, with improved antifouling properties)

L32 ANSWER 32 OF 36 HCA COPYRIGHT 2005 ACS on STN

82:113304 Coating **rubbers** and primer for use in the process.

Futami, Takashi; Yamasaki, Masahiro; Mizumori, Motoo; Moriwaki, Shinsaku (Sumitomo Chemical Co., Ltd.). Ger. Offen. DE 2418575 19741114, 19 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1974-2418575 19740417.

AB The adhesion of coatings to **elastomers** contg. >25% ethylene-propylene or butyl **rubber** is improved by a primer contg. a halogenated polyolefin and, optionally, a chloroprene polymer, amine derivs., and metal compds. Thus, a vulcanizate of ethylene-5-ethylidene-2-norbornene-propylene polymer [25038-36-2] **rubber** (Esprene 512, ML1+4 65) is coated with a 5% PhMe soln. of chlorinated polypropylene [9003-07-0] (Cl content 35.0%, mol. wt. 18,000), dried, heated 20 min at 70.degree., coated with a colored **polyurethane**, and cured 20 min at 120.degree. to give a coating with good adhesion, flexibility, and resistance to abrasion, stress, and weathering.

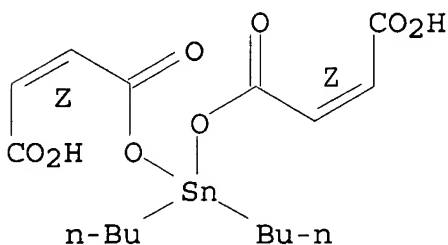
IT 10192-92-4

(primers contg., for improved adhesion of coatings to olefin **rubbers**)

RN 10192-92-4 HCA

CN 2-Butenoic acid, 4,4'-[(dibutylstannylene)bis(oxy)]bis[4-oxo-, (2Z,2'Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IC B44D; G09D

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 38

ST primer coating **rubber**; EPDM **rubber** coating; butyl **rubber** coating; chlorinated polypropylene primer; adhesion coating **rubber**; **polyurethane** coating adhesion **rubber**

IT **Rubber**, synthetic

- (EPDM, coating of, primers for improved adhesion in)
- IT **Rubber**, butyl, uses and miscellaneous
(coating of, primers for improved adhesion in)
- IT Coating process
(on olefin **rubbers**, primers for improved adhesion in)
- IT Polyamides, uses and miscellaneous
(primers contg., for improved adhesion of coatings to olefin **rubbers**)
- IT Coating materials
(primers, contg. halogenated polyolefins, for improved adhesion of coatings to olefin **rubbers**)
- IT **Rubber**, neoprene, uses and miscellaneous
(primers, for improved adhesion of coatings to olefin **rubbers**)
- IT 1-Propene, homopolymer, halogenated
(primers, for improved adhesion of coatings to olefin **rubbers**)
- IT 77-58-7 100-97-0, uses and miscellaneous 108-45-2, uses and miscellaneous 124-09-4, uses and miscellaneous 534-13-4 1309-48-4, uses and miscellaneous 1314-13-2, uses and miscellaneous 7646-85-7, uses and miscellaneous 10102-90-6 10192-92-4
(primers contg., for improved adhesion of coatings to olefin **rubbers**)
- IT 9010-85-9
(**rubber**, butyl; coating of, primers for improved adhesion in)
- IT 25038-36-2
(**rubber**, coating of, primers for improved adhesion in)
- IT 9010-98-4
(**rubber**, neoprene; primers, for improved adhesion of coatings to olefin **rubbers**)

L32 ANSWER 33 OF 36 HCA COPYRIGHT 2005 ACS on STN

77:165681 Laminated plastics containing active material. Bernstein, Bruce S.; Kapoor, Ramesh C.; Hyman, Seymour (Herculite Protective Fabrics Corp.). Ger. Offen. DE 2204911 19720831, 40 pp. Addn. to Ger. Offen. 1,694,395. (German). CODEN: GWXXBX. APPLICATION: DE 1972-2204911 19720202.

AB A practically nonporous polymer is coated on .geq.1 side with a **bactericide**, a **fungicide**, or another biol. active material, an antistatic agent (e.g., Advastat 50), or a perfume which migrates through the nonporous polymer to activate the entire polymer. The **bactericide** or other active ingredient is applied in a polymer soln. or in another soln. which is then covered with a polymer layer. The biol. active material is Dowicide A, Metasol 57, Captan, Arquad S-50, HgCl₂, tetracycline HCl, Fungitrol 11, Pyronyl 101, or a similar material. The practically nonporous

polymer is PVC [9002-86-2], nylon, poly(ethylene terephthalate), poly(vinyl fluoride) [24981-14-4], crepe **rubber**, polycarbonate, cotton fibers, a glass-reinforced polyester resin, etc. Thus, a 0.1 mm PVC film is coated on 1 side with an EtOAc soln. of an acrylic resin contg. 0.65% Dowicide A which migrates through the PVC film.

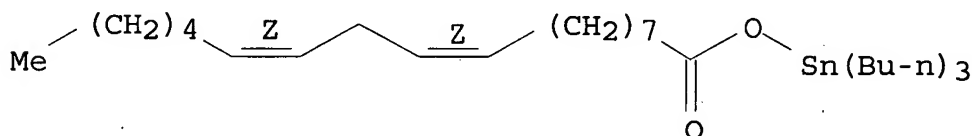
IT 24124-25-2 37332-64-2

(pesticide, for plastic films and fibers)

RN 24124-25-2 HCA

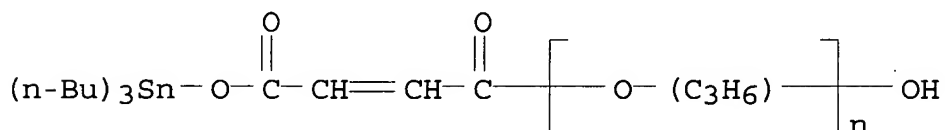
CN Stannane, tributyl[[(9Z,12Z)-1-oxo-9,12-octadecadienyl]oxy]- (9CI)
(CA INDEX NAME)

Double bond geometry as shown.



RN 37332-64-2 HCA

CN Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-[(2Z)-1,4-dioxo-4-
[(tributylstannyl)oxy]-2-butenyl]-.omega.-hydroxy- (9CI) (CA INDEX
NAME)



IC C08F

CC 37-2 (Plastics Fabrication and Uses)

ST plastic **bactericide** impregnation; **fungicide**
impregnation plastic; antistatic impregnation plastic; textile
impregnation **bactericide**

IT Cellophane

Rubber, natural; uses and miscellaneous

Rubber, nitrile; uses and miscellaneous

Textiles

Polyamides, uses and miscellaneous

Polyesters, uses and miscellaneous

Synthetic fibers

Urethane polymers, uses and miscellaneous

(antistatic agents perfumes and pesticides for)

IT Antistatic agents

Bactericides, Disinfectants and Antiseptics

(for plastics, compounding of)

IT 57-74-9 58-36-6 64-75-5 70-30-4 102-98-7 103-27-5
112-12-9 121-54-0 132-27-4 133-06-2 133-07-3 4419-22-1
5035-58-5 7487-94-7 8071-04-3 9002-81-7 24124-25-2
28801-69-6 37332-64-2

(pesticide, for plastic films and fibers)

IT 9003-18-3

(**rubber**, nitrile; antistatic agents perfumes and pesticides for)

L32 ANSWER 34 OF 36 HCA COPYRIGHT 2005 ACS on STN

68:13889 Polymerizable organotin compounds. (Pfizer, Chas., and Co., Inc.). Brit. GB 1089428 19671101, 18 pp. (English). CODEN: BRXXAA. PRIORITY: US; 19650512.

AB Tributyltin propylene glycol monoacrylate monomaleate (I) and similar compds. are prepd. and homopolymd. or copolymd. with Me methacrylate (II) or styrene. The organotin compds. and the polymers contg. them are useful as antimicrobial agents and as stabilizers for vinyl plastics, e.g. poly(vinyl chloride). Thus, 45.6 g. propylene glycol monoacrylate monomaleate was added to 59.6 g. bis(tributyltin) oxide contg. 50 mg. hydroquinone. The mixt. was heated slowly to 120.degree. to complete the reaction and drive off water and then cooled to give a clear, straw-colored, liq. I which could be homopolymd. with benzoyl peroxide to yield a clear, tough **elastomer**. A mixt. of 20 parts I, 80 parts II or styrene, and 0.2% benzoyl peroxide was also heated at 100.degree. for 4-6 hrs. to prep. a resin. Both the monomeric I and its polymers had antimicrobial properties. Similarly prepd. were tripropyltin propylene glycol monoacrylate monomaleate, tributyltin ethylene glycol monomethacrylate monomaleate, trioctyltin ethylene glycol monomethacrylate monomaleate, dibutyltin bis(propylene glycol monoacrylate monomaleate), dioctyltin bis(propylene glycol monoacrylate monomaleate), dibutyltin bis(ethylene glycol monomethacrylate monomaleate), dioctyltin bis(ethylene glycol monomethacrylate monomaleate), butyltin tris(propylene glycol monoacrylate monomaleate), and triphenyltin propylene glycol monoacrylate monomaleate.

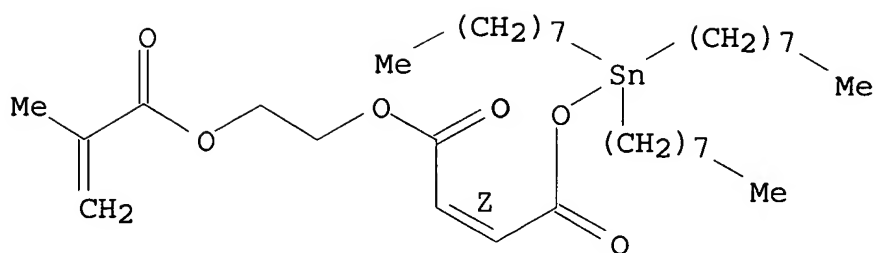
IT 15901-25-4P 15901-28-7P 16031-11-1P
19078-11-6P

(prepn. of)

RN 15901-25-4 HCA

CN Methacrylic acid, 2-hydroxyethyl ester, ester with
[(3-carboxyacryloyl)oxy]trioctyl stannane (8CI) (CA INDEX NAME)

Double bond geometry as shown.

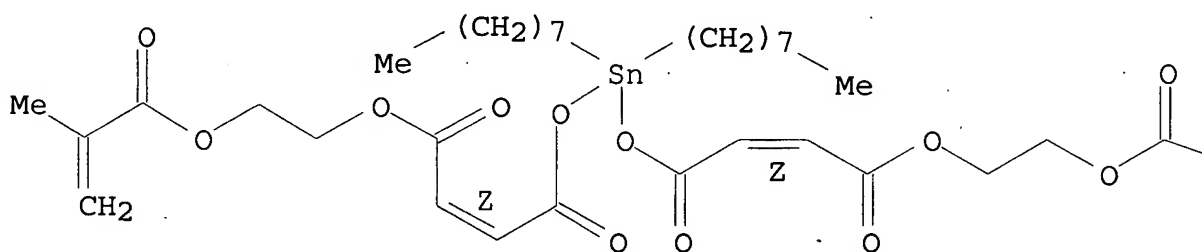


RN 15901-28-7 HCA

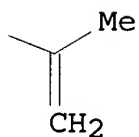
CN 4,7,12,14-Tetraoxa-13-stannaoctadeca-1,9,16-trien-18-oic acid,
2-methyl-13,13-dioctyl-3,8,11,15-tetraoxo-, 2-[(2-methyl-1-oxo-2-
propenyl)oxy]ethyl ester, (Z,Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

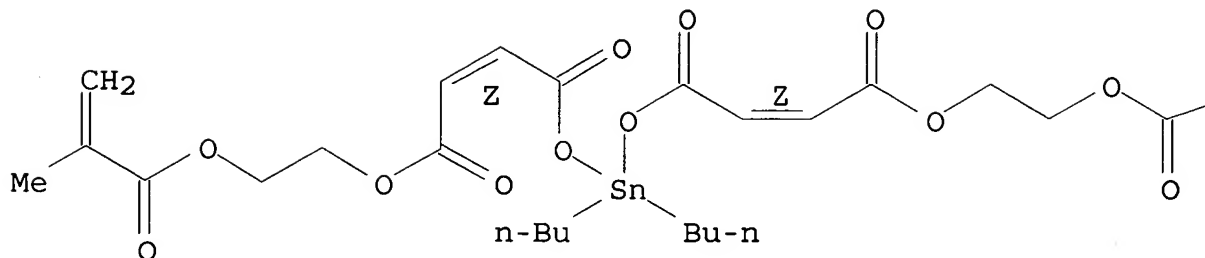


RN 16031-11-1 HCA

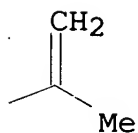
CN Methacrylic acid, 2-hydroxyethyl ester, diester with
dibutylbis[(3-carboxyacryloyl)oxy]stannane (8CI) (CA INDEX NAME)

Double bond geometry as shown.

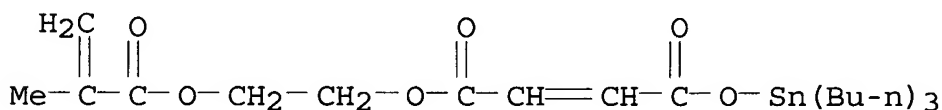
PAGE 1-A



PAGE 1-B



RN 19078-11-6 HCA
 CN Methacrylic acid, 2-hydroxyethyl ester, ester with
 tributyl[(3-carboxyacryloyl)oxy]stannane (8CI) (CA INDEX NAME)



IC C07F
 CC 38 (Elastomers, Including Natural Rubber)
 IT **Bactericides**
 (of unsatd. organotin compds. and unsatd. organotin compd.
 polymers)
 IT **Rubber, synthetic**
 (tributyltin propylene glycol monoacrylate monomaleate, manuf.
 of, catalysts for, benzoyl peroxide as)
 IT Acrylic acid, ester with propanediol ester with tributyl[(3-
 carboxyacryloyl)oxy]stannane, polymers
 Propanediol, monoacrylate, ester with tributyl[(3-
 carboxyacryloyl)oxy]stannane, polymers
 (**rubber**, manuf. of, catalysts for, benzoyl peroxide as)
 IT 110-16-7P, Maleic acid 7440-31-5DP, Tin, unsatd. org.
 15901-25-4P 15901-28-7P 16031-11-1P
 19078-11-6P
 (prepn. of)

62:67219 Original Reference No. 62:11988a-c Polymers of organotin urethans. (M. & T. Chemicals Inc.). NL 6405136 19641111, 16 pp. (Unavailable). PRIORITY: US; 19630510.

GI For diagram(s), see printed CA Issue.

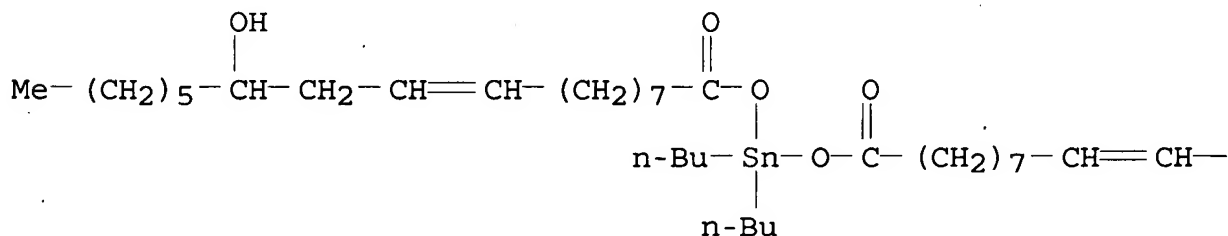
AB The title polymers are prepd. by reaction of org. polyisocyanates with compds. of the formula $RaSn[YR'(Z)c]4-a$, where a is an integer from 1 to 3, and R and R' are CH radicals, Y is bridging R' to the Sn atom and contains O or S, Z is a functional group contg. active H. Thus, dibutyltin bis(2-hydroxyethyl mercaptide) is prepd. by reaction of 0.1 mole Bu_2SnO with 0.2 mole HSC_2H_4OH in toluene. The mixt. is refluxed until 1.8 ml. H_2O is distd. off, cooled to room temp., and 0.1 mole mixed tolylene diisocyanate (I) is added slowly with stirring. After heating, the toluene is removed by distn., giving a solid polymer with a low m.p. To a soln. of 0.1 mole dioctyltin bis(p-hydroxybenzoate) in toluene, 0.1 mole I is added. After refluxing for 1 hr., the toluene is withdrawn. The resulting organotin **polyurethan** has a softening point of 117.degree.. A toluene soln. of 0.1 mole dibutyltin bis(ricinoleate) was heated with 0.1 mole I with stirring and then cooled, giving a very viscous soln. of a **polyurethan** contg. 51.9% solids. Tributyltin N-dodecyl-.beta.-aminobutyrate is prepd. by reaction of 0.5 mole $(Bu_3Sn)_2O$ with 0.1 mole N-dodecyl-.beta.-aminobutyric acid, heating for 1 hr. at 80.degree. and for 1 hr. at 120.degree.. The viscous liquid is mixed with 0.05 mole I, giving II, toxic against fungi like *Aspergillus flavus* and *Candida albicans*. Other uses of the different polymers are stabilization of vinyl polymers and prepn. of **elastomers** and adhesives.

IT 3006-29-9, Tin, dibutylbis(ricinoleoyloxy)-(urethan polymers from methylphenylene diisocyanate and)

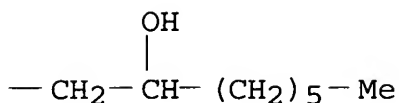
RN 3006-29-9 HCA

CN Stannane, dibutylbis(ricinoleoyloxy)-(8CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



- IC C07F
 CC 48 (Plastics Technology)
 IT Adhesives
 (from **urethan** polymers, Sn-contg.)
 IT Vinyl compound polymers
 (stabilizer for, Sn-contg. **urethan** polymers as)
 IT **Fungicides** or Fungistats
 (tin-contg. **urethan** polymers as)
 IT **Urethane** polymers
 (tin-contg., as adhesives, **fungicides** and stabilizers
 for vinyl compd. polymers)
 IT Ethanol, 2,2'-(dibutylstannylenedithio)di-, **urethan**
 polymers from tolylenediisocyanate
 Tin, bis[(4-aminosalicyloyl)oxy]dibutyl-, **urethan** polymers
 from tolylenediisocyanate
 Tin, bis[(p-hydroxybenzoyl)oxy]dioctyl-, **urethan** polymers
 from tolylenediisocyanate
 Tin, dibutylbis(glycoloyloxy)-, **urethan** polymers from
 tolylenediisocyanate
 Tin, dibutylbis[(2-hydroxyethyl)thio]-, **urethan** polymers
 from tolylenediisocyanate
 IT 65-49-6, Salicylic acid, 4-amino- 141-22-0, Ricinoleic acid
 93882-94-1, Glycolic acid, dibutylthiocarbamate
 (dibutyltin deriv., **urethan** polymers from
 tolylenediisocyanate and)
 IT 106406-72-8, Benzoic acid, p-hydroxy-, [3,7-dimethyl-9-(2,6,6-
 trimethyl-1-cyclohexen-1-yl)-2,4,6,8-nonatetraenylidene]hydrazide
 (dioctyltin deriv., **urethan** polymers from
 tolylenediisocyanate and)
 IT 7440-31-5, Tin
 (**urethan** polymers contg., as adhesives,
 fungicides and vinyl compd. polymer stabilizers)
 IT 3006-29-9, Tin, dibutylbis(ricinoleoyloxy)-
 (**urethan** polymers from methylphenylene diisocyanate
 and)
 IT 26471-62-5, Isocyanic acid, methylphenylene ester
 (**urethan** polymers from organotin compds. and)

L32 ANSWER 36 OF 36 HCA COPYRIGHT 2005 ACS on STN

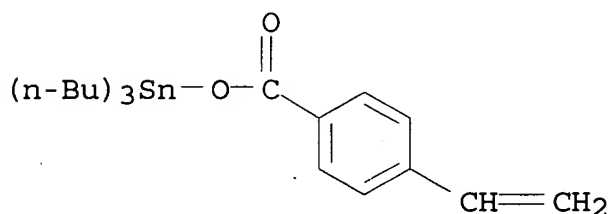
61:47997 Original Reference No. 61:8340a-b Hydrocarbyltin salts of p-vinylbenzoic acid. Leebrick, John R. (M. T. Chemicals Inc.). GB 952490 19640318, 6 pp. (Unavailable). PRIORITY: US; 19600606.

AB A mixt. of 5 g. Bu₂SnO, 6 g. p-vinylbenzoic acid, and 50 ml. C₆H₆ was refluxed, in a Dean-Stark app., until the theoretical amt. H₂O was removed to give dibutyltin bis(p-vinylbenzoate) (I). Similarly were prepd. R₂Sn(O₂CC₆H₄CH:CH₂-p)₂ (R = Me, vinyl, allyl, hexyl, Ph (II), benzyl, chlorophenyl, and octyl). Tributyltin p-vinylbenzoate (III) and octyltin tris(p-vinylbenzoate) were also prepd. I was prepd. from Bu₂SnCl₂ and NH₄ p-vinylbenzoate. III was homopolymerized with di-tert-Bu₂O₂ as initiator at 160.degree. in a mass polymerization system and in an emulsion system (with Bz₂O₂) at reflux, and copolymerized with p-chlorostyrene and with Me methacrylate in an emulsion system using Bz₂O₂ as initiator to give **rubbery** polymers. Similarly, I was copolymerized with styrene, and II copolymerized with Me methacrylate. These organotin compds. imparted heat and light stability to resins to which they are added. They also exhibited **fungicidal** activity.

IT 100261-18-5, Tin, tributyl[(p-vinylbenzoyl)oxy]-
(prepn. of)

RN 100261-18-5 HCA

CN Tin, tributyl[(p-vinylbenzoyl)oxy]- (7CI) (CA INDEX NAME)



IC C07F

CC 39 (Organometallic and Organometalloidal Compounds)

IT **Fungicides** or Fungistats
((p-vinylbenzoyloxy) tin derivs. as)

IT 4306-99-4, Benzoic acid, 2,2'-(salicylidenedithio)di-
100261-18-5, Tin, tributyl[(p-vinylbenzoyl)oxy]-
(prepn. of)

=> d 130 1-14 cbib abs hitstr hitind

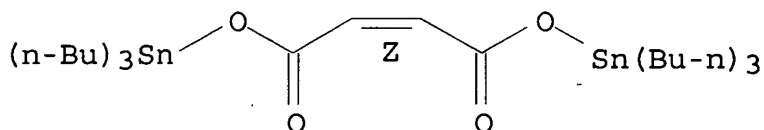
L30 ANSWER 1 OF 14 HCA COPYRIGHT 2005 ACS on STN

143:28047 Pet toys possessing microbe-inhibiting properties. Denesuk, Matthew; Uhlmann, Eugenie V. (Seefar Technologies Inc., USA). Can. Pat. Appl. CA 2238115 AA 19991014, 69 pp. (English). CODEN: CPXXEB. APPLICATION: CA 1998-2238115 19980623. PRIORITY: US

1998-59826 19980414.

- AB Pet toys possessing microbe-inhibiting properties have microbicides in the .gtoreq.1 of the outer fabric layer, the fibrous, particulate, or foam fillers or the plastic layer between the outer layer and the filling. Application methods include spraying, dipping, brushing, and rolling the microbe-inhibiting agent or property onto at least one of the outer textile casing and the inner filling or incorporating in the fibers.
- IT 14275-57-1, Tributyltin maleate
(Ultra Fresh DM 50; fabric-covered, fiber-, particulate-, or foam-filled pet toys possessing microbe-inhibiting properties)
- RN 14275-57-1 HCA
- CN 6,11-Dioxa-5,12-distannahexadec-8-ene, 5,5,12,12-tetrabutyl-7,10-dioxo-, (8Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



- IC ICM A01K015-02
- ICS A01K029-00; A01N059-00; A01N055-10; A01N031-16; A01N025-34
- CC 40-10 (Textiles and Fibers)
Section cross-reference(s): 5, 38
- IT Acetate fibers, uses
Acrylic fibers, uses
Plastic foams
Polyamide fibers, uses
Polyester fibers, uses
Polyesters, uses
Polyolefin fibers
Polypropene fibers, uses
Polyurethane fibers
Spandex fibers
(fabric-covered, fiber-, particulate-, or foam-filled pet toys possessing microbe-inhibiting properties)
- IT **Polyurethanes**, uses
(filler; fabric-covered, fiber-, particulate-, or foam-filled pet toys possessing microbe-inhibiting properties)
- IT Synthetic polymeric fibers, uses
(**rubber**; fabric-covered, fiber-, particulate-, or foam-filled pet toys possessing microbe-inhibiting properties)
- IT 14275-57-1, Tributyltin maleate
(Ultra Fresh DM 50; fabric-covered, fiber-, particulate-, or foam-filled pet toys possessing microbe-inhibiting properties)

L30 ANSWER 2 OF 14 HCA COPYRIGHT 2005 ACS on STN

140:60155 Low emission tin catalysts for preparation of

urethanes.. Schumacher, Oliver (Crompton G.m.b.H., Germany). PCT Int. Appl. WO 2004000906 A1 20031231, 27 pp.

DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2003-EP6265 20030613. PRIORITY: EP 2002-13830 20020621.

AB Plastic articles with low emission obtainable by polymn., condensation, and/or crosslinking reaction including the use of metal catalysts wherein said metal catalyst has a low emissivity and is an organotin compd. of the general formula R_2SnX_2 wherein R = C1-8 hydrocarbaryl, X = C14-20 carboxylate group having at least one olefinic double bond. Moreover, the invention relates to the use of an organotin compd. in the manuf. of plastic articles with low emissivity of said organotin compd.

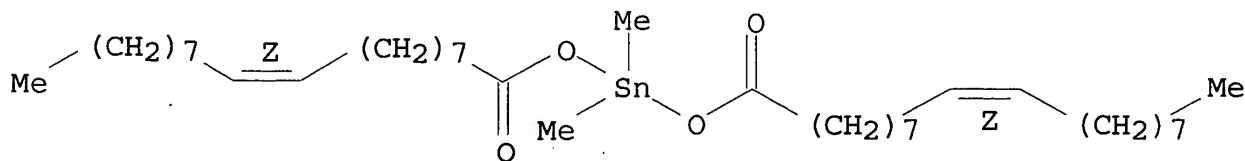
IT 3865-34-7P, Dimethyltin dioleate 3955-81-5P
13323-62-1P, Dibutyltin dioleate 27550-52-3P,
Diocetyl tin dioleate 638080-99-6P 638081-06-8P

(low emission tin catalysts for prepn. of **urethanes.**)

RN 3865-34-7 HCA

CN Stannane, dimethylbis[[(9Z)-1-oxo-9-octadecenyl]oxy] - (9CI) (CA INDEX NAME)

Double bond geometry as shown.



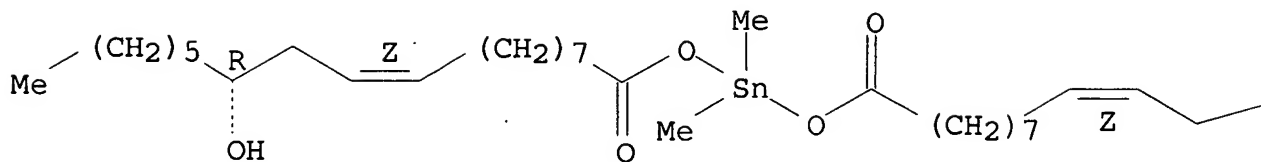
RN 3955-81-5 HCA

CN 9-Octadecen-7-ol, 18,18'-[(dimethylstannylene)bis(oxy)]bis[18-oxo-, (7R,7'R,9Z,9'Z) - (9CI) (CA INDEX NAME)

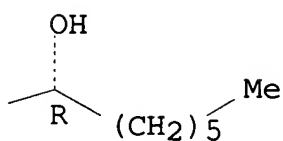
Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-A

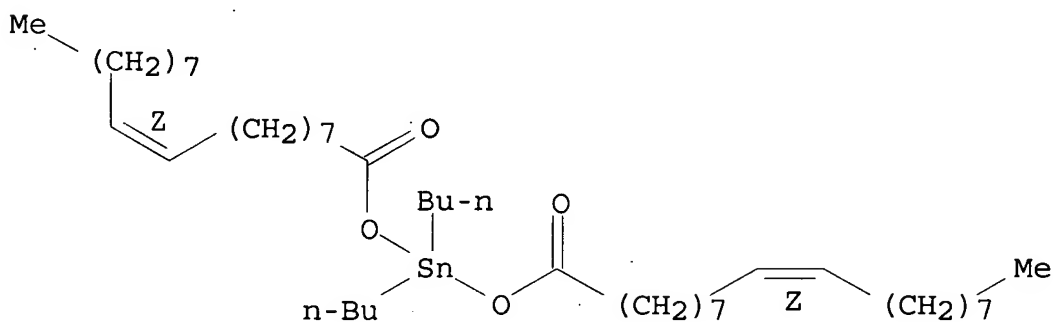


PAGE 1-B



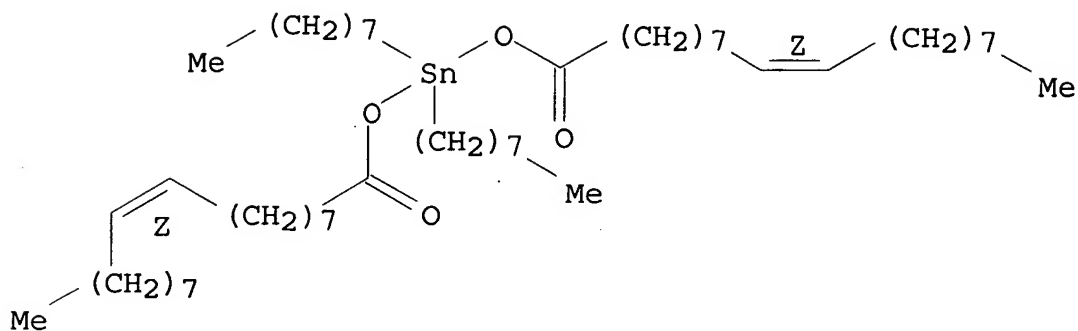
RN 13323-62-1 HCA
 CN Stannane, dibutylbis[[(9Z)-1-oxo-9-octadecenyl]oxy] - (9CI) (CA
 INDEX NAME)

Double bond geometry as shown.



RN 27550-52-3 HCA
 CN Stannane, dioctylbis[[(9Z)-1-oxo-9-octadecenyl]oxy] - (9CI) (CA
 INDEX NAME)

Double bond geometry as shown.

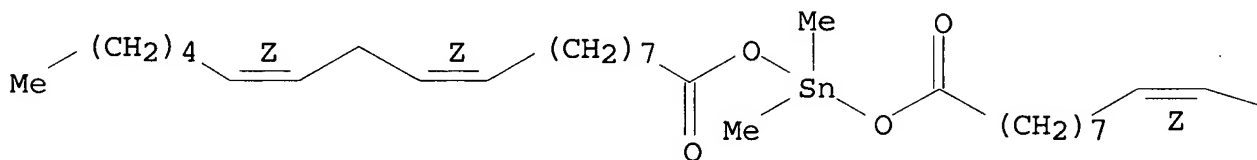


RN 638080-99-6 HCA

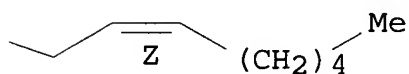
CN Stannane, dimethylbis[[(9Z,12Z)-1-oxo-9,12-octadecadienyl]oxy] - (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

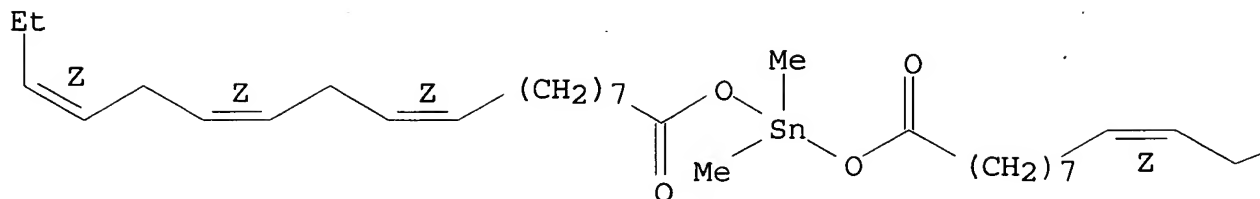


RN 638081-06-8 HCA

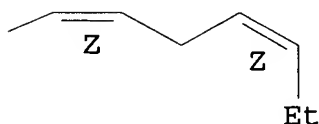
CN Stannane, dimethylbis[[(9Z,12Z,15Z)-1-oxo-9,12,15-octadecatrienyl]oxy] - (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B



- IC ICM C08G018-24
ICS C08G077-00
- CC 35-3 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 39
- ST tin polymn condensation crosslinking catalyst **urethane**
foam prepn
- IT Condensation reaction catalysts
Crosslinking catalysts
Molding of plastics and **rubbers**
Polymerization catalysts
(low emission tin catalysts for prepn. of **urethanes**.)
- IT Plastic foams
Polyurethanes, preparation
(low emission tin catalysts for prepn. of **urethanes**.)
- IT **3865-34-7P**, Dimethyltin dioleate **3955-81-5P**
13323-62-1P, Dibutyltin dioleate **27550-52-3P**,
Diocetyl tin dioleate **638080-99-6P** **638081-06-8P**
(low emission tin catalysts for prepn. of **urethanes**.)
- IT **639011-44-2P**
(low emission tin catalysts for prepn. of **urethanes**.)
- IT **59675-67-1P**, 4,4'-Diphenylmethane diisocyanate-Voranol CP
1421-Voranol CP 6001 copolymer **639011-45-3P**
(low emission tin catalysts for prepn. of **urethanes**.)
- IT **60-33-3**, Linoleic acid, reactions **112-80-1**, Oleic acid, reactions
141-22-0, Ricinoleic acid **463-40-1**, Linolenic acid **753-73-1**,
Dimethyltin dichloride **818-08-6**, Dibutyltin oxide **870-08-6**,

Diocetyl tin oxide 2273-45-2, Dimethyltin oxide
(low emission tin catalysts for prepn. of urethanes.)

L30 ANSWER 3 OF 14 HCA COPYRIGHT 2005 ACS on STN

129:123895 **Polyurethane** gel compositions for sealing materials for clean rooms. Nakamura, Satoshi (Nisshin Spinning Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 10158356 A2 19980616 Heisei, 7 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1996-334433 19961202.

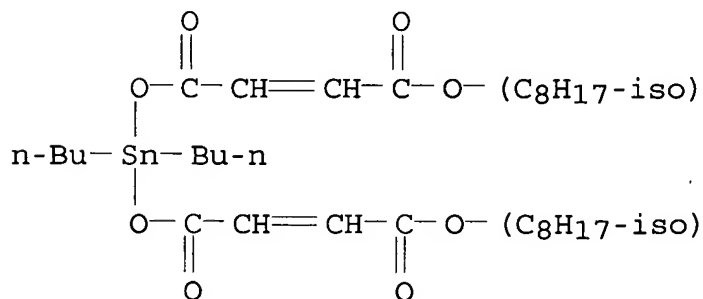
AB Gel compns. are prepd. from ester solns. contg. 15-50% OH-terminated polybutadiene-**urethane** prepolymers having mol. wt. 3500-7000 prepd. by reacting OH-terminated polybutadiene having mol. wt. 1000-3000 with pure MDI in esters selected from phthalates, trimellitates, and pyromellitates having mol. wt. 390-710, solns. of .gtoreq.1 of the above esters contg. 1.2-1.8% pure MDI, and urethanization catalysts. Thus, di-n-octyl phthalate(I) 68, R 45HT 28.5, Isonate 125M (II) 1.5, and DBTDL 2.0 g were used to prep. a 30% prepolymer and mixed (50 g) with 50 g 98.5:1.5 I-II to prep. a gel.

IT 25168-21-2, DABCO 125

(DABCO 125; polybutadiene **polyurethane** gel compns. for air seals for clean rooms)

RN 25168-21-2 HCA

CN 2-Butenoic acid, 4,4'-[(dibutylstannylene)bis(oxy)]bis[4-oxo-, diisooctyl ester, (2Z,2'Z)- (9CI) (CA INDEX NAME)



IC ICM C08G018-69

ICS C08G018-10; C08G018-76; C09K003-10

CC 42-11 (Coatings, Inks, and Related Products)

ST clean room sealant polybutadiene **polyurethane**; ester soln **polyurethane** prepolymer; gel polybutadiene **polyurethane** sealant; catalyst organotin **polyurethane** sealant

IT Solvents

(esters; polybutadiene **polyurethane** gel compns. for air seals for clean rooms)

IT Butadiene **rubber**, uses

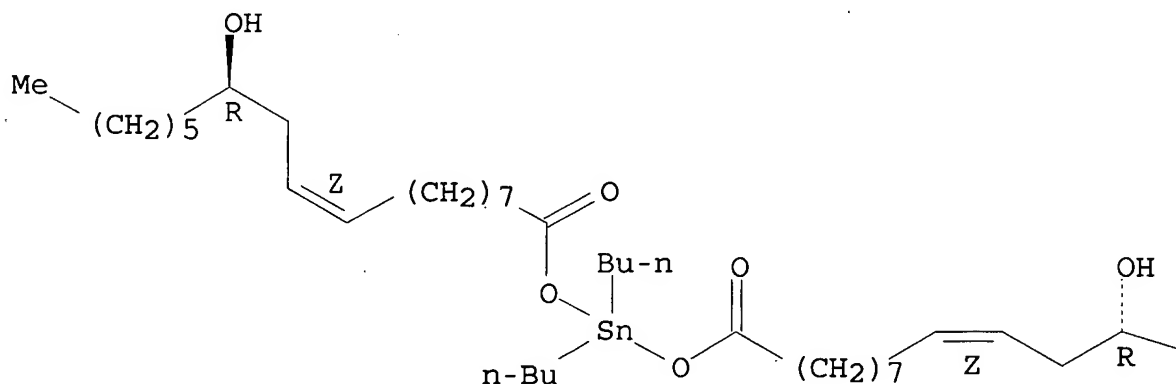
(hydroxy-terminated, Poly bd R-45HT, reaction products with MDI; polybutadiene **polyurethane** gel compns. for air seals for clean rooms)

- IT Air
Gels
Polymerization catalysts
Sealing compositions
(polybutadiene **polyurethane** gel compns. for air seals for clean rooms)
- IT **Polyurethanes**, uses
(polybutadiene **polyurethane** gel compns. for air seals for clean rooms)
- IT Esters, uses
(solvents; polybutadiene **polyurethane** gel compns. for air seals for clean rooms)
- IT 1185-81-5, DABCO 120
(DABCO 120; polybutadiene **polyurethane** gel compns. for air seals for clean rooms)
- IT 25168-21-2, DABCO 125
(DABCO 125; polybutadiene **polyurethane** gel compns. for air seals for clean rooms)
- IT 280-57-9, 1,4-Diazabicyclo[2.2.2]octane
(Dabco Cryst.; polybutadiene **polyurethane** gel compns. for air seals for clean rooms)
- IT 9003-17-2P
(butadiene **rubber**, hydroxy-terminated, Poly bd R-45HT, reaction products with MDI; polybutadiene **polyurethane** gel compns. for air seals for clean rooms)
- IT 77-58-7, DBTDL 210104-20-4, Dabco 131 210106-02-8, T 52NJ
(polybutadiene **polyurethane** gel compns. for air seals for clean rooms)
- IT 101-68-8DP, reaction products with hydroxy-terminated butadiene **rubber** 64366-52-5DP, Isonate 125M, reaction products with hydroxy-terminated butadiene **rubber**
(polybutadiene **polyurethane** gel compns. for air seals for clean rooms)
- IT 84-76-4, Di-n-nonyl phthalate 84-77-5 89-04-3, Tri-n-octyl trimellitate 117-81-7, DOP 117-84-0, Di-n-octyl phthalate 119-06-2, Di-tridecyl phthalate 3126-80-5, Tetra-2-ethylhexyl pyromellitate 3319-31-1, Tri-2-ethylhexyl trimellitate 26761-40-0, Di-isodecyl phthalate 27251-75-8, Tri-isooctyl trimellitate 28553-12-0, Di-isononyl phthalate 36631-30-8, Tri-isodecyl trimellitate 38937-56-3, Tetra-n-octyl pyromellitate 53894-23-8, Tri-isononyl trimellitate
(solvents; polybutadiene **polyurethane** gel compns. for air seals for clean rooms)

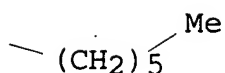
AB Reaction injection moldable **urethane rubbers**, useful for automobile bodies, are prepd. from polyether polyols of av. mol. wt. .gtoreq.500 amine-terminated chain extenders, and arom. polyisocyanates in the presence of $R\text{Sn}(X\text{ROM})_2$ [$R = \text{C1-8 alkyl, aryl}$; $R_1 = (\text{OH-contg.}) \text{C2-22 hydrocarbylene}$; $X = \text{S, CO}_2$]. Thus, a compn. contg. Bu_2Sn bis(2-hydroxyethylmercaptide), Multanol M 3901 (polyoxyalkylene glycerol ether), Mondur PF, and an 80:20 5-tert-butyl-2,4-toluenediamine-3-tert-butyl-2,6-toluenediamine mixt. was reaction injection molded to give a test piece with good thermal stability (annealing at 165.degree. for 80 min).

CN 9-Octadecen-7-ol, 18,18'-[(dibutylstannylene)bis(oxy)]bis[18-oxo-,
[R-[R*,R*-(Z,Z)]]-(9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



- IC ICM C08G018-24
- CC 39-4 (Synthetic Elastomers and Natural Rubber)
Section cross-reference(s): 67
- ST dibutyltin bishydroxyethylmercaptide catalyst **urethane rubber**; polyurea **polyurethane** thermal stability catalyst; automobile body polyether polyurea **polyurethane**
- IT Polymerization catalysts
(organotin bis(hydroxymercaptide) or bis(hydroxycarboxylate), for heat-resistant **urethane rubbers**)
- IT Heat-resistant materials
(polyurea-**polyurethane rubbers**, manuf. of, catalysts for)
- IT Automobiles
(bodies, heat-resistant **urethane rubbers** for)
- IT **Rubber, urethane**, preparation
(polyether-polyurea-, manuf. of thermally stable, in presence of organotin bis(hydroxymercaptide) or bis(hydroxycarboxylate))
- IT 3026-81-1 53478-57-2, Dibutyltin bis(12-hydroxystearate)
65540-76-3 68298-38-4 133532-39-5 144055-01-6
(manuf. of thermal-stable **urethane rubbers** in presence of)
- IT 144307-56-2 144307-57-3
(**rubber**, manuf. of thermally stable, in presence of org. tin bis(hydroxymercaptide) or bis(hydroxycarboxylate))
- L30 ANSWER 5 OF 14 HCA COPYRIGHT 2005 ACS on STN
- 113:191642 Preparation of organotin oxides as polymerization catalysts and polymer stabilizers. Kaufhold, Johannes; Hopp, Alfred; Hopp, Barbara; Horn, Volker; Hupfer, Irmgard; Jacob, Uwe; Menzel, Manfred (VEB Chemiewerk Greiz-Doelau, Ger. Dem. Rep.). Ger. (East) DD 275690 A1 19900131, 4 pp. (German). CODEN: GEXXA8. APPLICATION: DD 1988-319896 19880919.

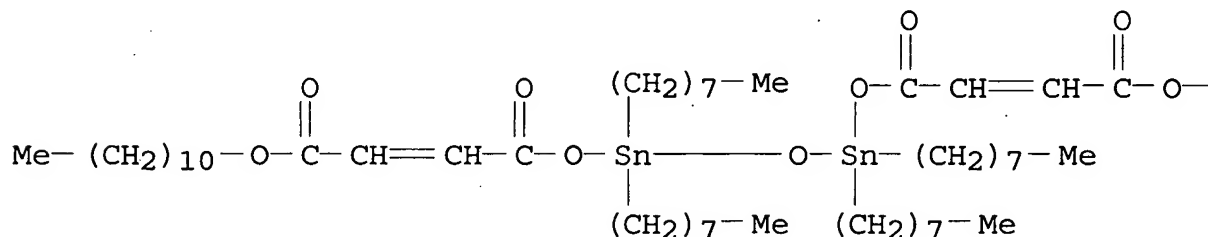
AB (R₁SnXCO₂R₂)₂O [R₁ = Bu, octyl; R₂ = alkyl; X = S(CH₂)_n, O₂CX₁; n = 1, 2; X₁ = alkylene, alkenylene], were prepd. from organotin oxides. Thus, a mixt. of dioctyltin maleate and dioctyltin oxide in hexane was treated with thioglycolic acid and then dodecanol to give Me(CH₂)₁₀O₂CCH:CHCO₂Sn[(CH₂)₇Me]₂OSn[(CH₂)₇Me]₂SCH₂CO₂(CH₂)₁₀Me.

IT 130050-63-4P
(prepn. of, as polymer stabilizer and catalyst)

RN 130050-63-4 HCA

CN 2-Butenoic acid, 4,4'-[(1,1,3,3-tetraoctyl-1,3-distannoxanediyl)bis(oxy)]bis[4-oxo-, diundecyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

— (CH₂)₁₀—Me

IC ICM C07F007-22

CC 29-8 (Organometallic and Organometalloidal Compounds)
Section cross-reference(s): 35, 37

ST organotin oxide prepn PVC stabilizer; tin thioalkylcarboxylate esterification dimerization; **polyurethane** silicone **elastomer** catalyst organotin

IT 71510-19-5P 130050-62-3P 130050-63-4P 130050-64-5P
(prepn. of, as polymer stabilizer and catalyst)

L30 ANSWER 6 OF 14 HCA COPYRIGHT 2005 ACS on STN

113:132510 Preparation of organotin carboxylates. Kaufhold, Johannes; Hopp, Alfred; Hopp, Barbara; Horn, Volker; Hupfer, Irmgard; Jacob, Uwe; Menzel, Manfred (VEB Chemiewerk Greiz-Doelau, Ger. Dem. Rep.). Ger. (East) DD 275691 A1 19900131, 3 pp. (German). CODEN: GEXXA8. APPLICATION: DD 1988-319897 19880919.

AB Organotin carboxylates, useful as stabilizers for polyvinyl chloride

IT 81034-75-5P

RN 81034-75-5 HCA

$$\begin{array}{c} \text{Et}-\text{CH}-\text{Bu}-n \\ | \\ \text{CH}_2-\text{O}-\overset{\text{O}}{\parallel}\text{C}-\text{CH}_2-\text{S}-\text{Sn}-\text{Bu}-n \\ | \\ n-\text{Bu} \end{array} \quad \begin{array}{c} \text{O} \qquad \qquad \text{O} \qquad \qquad \text{Et} \\ \parallel \qquad \qquad \parallel \\ \text{O}-\text{C}-\text{CH}=\text{CH}-\text{C}-\text{O}-\text{CH}_2-\text{CH}-\text{Bu}-n \\ | \\ \text{O}-\overset{\text{O}}{\parallel}\text{C}-\text{CH}_2-\text{S}-\text{Sn}-\text{Bu}-n \\ | \\ n-\text{Bu} \end{array}$$

CC 29-8 (Organometallic and Organometalloidal Compounds)
Section cross-reference(s): 35

Urethane polymers, preparation

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1 1 1 1
(prepn. of, catalysts for, organotin carboxylates)

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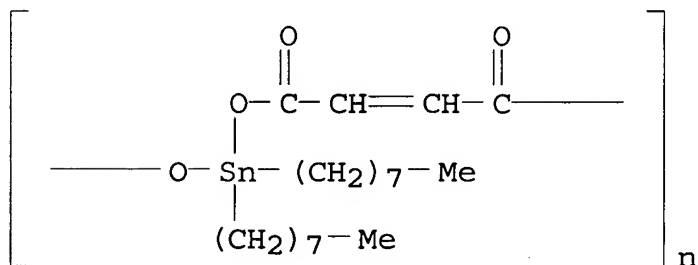
(prepn. of, as stabilizer for PVC and catalysts for prepn. of **polyurethanes** and silicones)

107:210506 Fillers for electrically conductive compositions with organic resin binders. Ehrreich, John E. (Ercon, Inc., USA). U.S. US 4683082 A 19870728, 6 pp. (English). CODEN: USXXAM. APPLICATION: US 1985-716583 19850327.

AB The filler consists of a conductive powder of metal, C, or Fe oxide, coated with an amt. of an organotin pacifier agent sufficient to impart good cond.- and viscosity-stabilizing properties to the org. resin binder systems on aging. The pacifier is preferably a tetravalent organotin S compd., and the conductive powder is most preferably Ag flake. Thermolite 831 III [pacifier based on dioctyltin bis(iso-octylmercaptoacetate)] in acetone was mixed with Ag flakes and the treated flakes were dried and mixed with a binder

system contg. Vitel PE200 (polyester) and Saran F310 [poly(vinylidene chloride)-acrylonitrile copolymer]. A 2-in. segment of a silk-screened film prepd. from this compn. had an elec. resistance of .apprx.1.5 .OMEGA.. After aging 15 h at 80.degree. in a sealed glass bottle, the compn. was still easily silk-screenable and had an elec. resistance of .apprx.4 .OMEGA..

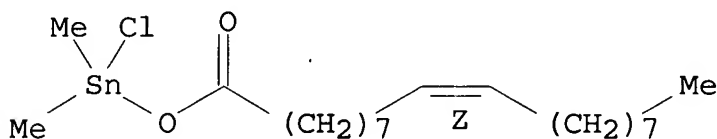
- IT 32077-00-2, Di-n-octyltin maleate polymer
(pacifying agent, for elec. conductive compns. comprising conductive powders in polymer binders)
- RN 32077-00-2 HCA
- CN Poly[oxy(dioctylstannylene)oxy[(2Z)-1,4-dioxo-2-butene-1,4-diyl]]
(9CI) (CA INDEX NAME)



- IC ICM H01B001-06
- INCL 252506000
- CC 76-2 (Electric Phenomena)
Section cross-reference(s): 38, 42
- IT **Rubber, urethane**, uses and miscellaneous
(adipic acid-butanediol-diphenylmethane diisocyanate, vinyl acetate-vinyl chloride copolymer blends, as binders in elec. conductive compns., organotin pacifying agents for)
- IT 1912-83-0, Stannous octanoate 26401-97-8, Thermolite 831
32077-00-2, Di-n-octyltin maleate polymer 57656-92-5,
Thermolite 42 111146-31-7 111146-32-8 111146-33-9
(pacifying agent, for elec. conductive compns. comprising conductive powders in polymer binders)
- IT 9003-22-9D, Vinyl acetate-vinyl chloride copolymer, carboxylate derivs. 9003-22-9D, Vinyl acetate-vinyl chloride copolymer, hydroxyl-group-contg. 9005-09-8, VMCH 25086-48-0
(**polyurethane** blends, as binders in elec. conductive compns., organotin pacifying agents for)
- L30 ANSWER 8 OF 14 HCA COPYRIGHT 2005 ACS on STN
- 103:179103 Optionally-foamed **polyurethanes**. Rasshofer, Werner; Avar, Geza; Freitag, Hans Albrecht; Groegler, Gerhard; Kopp, Richard (Bayer A.-G., Fed. Rep. Ger.). Can. CA 1185396 A1 19850409, 29 pp. (English). CODEN: CAXXA4. APPLICATION: CA 1982-395806 19820208.

- AB Catalysts for polymn. of polyols with polyisocyanates comprise $R_1R_2Sn(X)O_2CZR_3n$ [$R_1, R_2 = C_1-20$ alkyl, C_5-7 cycloalkyl, or C_7-30 alkaryl; $X =$ halide; $Z = C_1-30$ aliph. radical, C_4-7 cycloaliph. radical, C_6-14 arylene; $R_3 = H$ or $CO_2Sn(X)R_1R_2$; $n = 1-3$]. Thus, a mixt. contg. polyethylene-polypropylene glycol trimethylolpropane ether (OH no. 27, mol. wt. 6222) 90, ethylene glycol 5, diethanolamine 4, $Me_2Sn(Cl)O_2C(CH_2)_{10}CH_3$ (I) [82963-05-1] 1, and CCl_3F 12 g was mixed 30 s with 36 g isophorone diisocyanate-polypropylene glycol glycerol ether prepolymer (OH no. 670, NCO content 28%). The reaction mixt. exhibited cream and gel times 34-40 and 120-140 s, resp., whereas the copolymer [82994-83-0] films stayed tacky for several days without setting when 1 g Sn dioctoate or 1 g dibutyltin dilaurate was used instead of I.
- IT **82963-03-9**
(catalysts, for polymn. of polyols with polyisocyanates)
- RN 82963-03-9 HCA
- CN Stannane, chlorodimethyl[(1-oxo-9-octadecenyl)oxy]-, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



- IC ICM C08G018-24
ICS C08G018-14; C08J009-32
- CC 37-3 (Plastics Manufacture and Processing)
Section cross-reference(s): 35, 39
- ST alkyltin chloride alkanoate polymn catalyst; tin alkyl chloro alkanoate polymn catalyst; methyltin chloride dodecanoate polymn catalyst; polyol polyisocyanate polymn catalyst; **polyurethane** foam polymn catalyst; room temp polymn catalyst **polyurethane**
- IT **Urethane** polymers, preparation
(cellular, manuf. of, catalysts for)
- IT **Rubber, urethane**, preparation
(manuf. of, catalysts for)
- IT 33696-79-6 38186-24-2 82963-02-8 **82963-03-9**
82963-04-0 82963-05-1
(catalysts, for polymn. of polyols with polyisocyanates)
- IT 82975-55-1P 98060-28-7P
(**rubber**, manuf. of, catalysts for)

Rasshofer, Werner; Avar, Geza; Freitag, Hans Albrecht; Groegler, Gerhard; Kopp, Richard (Bayer A.-G., Fed. Rep. Ger.). Ger. Offen. DE 3100977 A1 19820805, 39 pp. (German). CODEN: GWXXBX.

APPLICATION: DE 1981-3100977 19810115.

- AB Halodihydrocarbyl(acyloxy)stannanes are catalysts for the prepn. of **polyurethanes**, preferably for foams with compact surfaces (integral foams). Thus, adding 46 g polyoxypropylated glycerol-isophorone diisocyanate prepolymer (28% NCO) to a mixt. of trimethylolpropane polyethylene-polypropylene glycol ether (1:3) (OH no. 27, mol. wt. 5600) 90, HOCH₂CH₂OH 5, diethanolamine 4, C₁₁H₂₃CO₂Sn(Cl)Me₂ [82963-05-1] 1, and CCl₃F 12 g and stirring intensively 30 s gave a polymer [82994-83-0] foam with start time 34-40 s and setting time 120-40 s. With Sn(II) octanoate or Bu₂Sn dilaurate as catalyst, the foam remained tacky for several days.

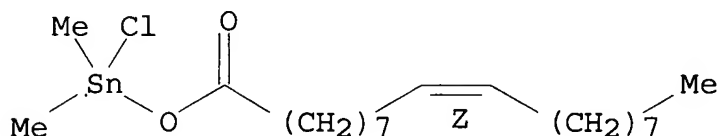
IT 82963-03-9

(catalysts, for manuf. of **polyurethane** integral foams)

RN 82963-03-9 HCA

CN Stannane, chlorodimethyl[(1-oxo-9-octadecenyl)oxy]-, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IC C08G018-24; C08G018-40; C08G018-14

CC 37-3 (Plastics Manufacture and Processing)

ST **polyurethane** foam polymn. catalyst; stannane acyloxyhalo catalyst polymn; dodecanoate chlorodimethylstannyl catalyst polymn

IT **Urethane** polymers, preparation

(cellular, manuf. of integral, catalysts for)

IT Polymerization catalysts

(halostannyl alkanoates, for manuf. of **polyurethane** integral foams)

IT **Rubber, urethane**, preparation

(manuf. of, catalysts for)

IT 33696-79-6 38186-24-2 82963-02-8 82963-03-9

82963-04-0 82963-05-1

(catalysts, for manuf. of **polyurethane** integral foams)

IT 82975-55-1P 82994-82-9P

(**rubber**, manuf. of, catalysts for)

L30 ANSWER 10 OF 14 HCA COPYRIGHT 2005 ACS on STN

96:69884 Cation complexes between cation guests and polymer hosts that contain cyclic ether units. Etter, Margaret C.; Smith, Samuel;

Schultz, William J.; Pocius, Alphonsus V. (Minnesota Mining and Manufacturing Co., USA). PCT Int. Appl. WO 8101557 A1 19810611, 54 pp. DESIGNATED STATES: W: JP; RW: AT, CH, DE, FR, GB, LU, NL, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1980-US1414 19801023. PRIORITY: US 1979-97486 19791126.

AB Stable complexes between polydentate polymeric hosts (mol. wt. .gtoreq.1000) contg. cyclic ether units joined through THF 2,5- or tetrahydropyran 2,6-diyl units and a wide variety of cationic guests were prepd. based on ion-dipole interactions between cations and the array of heteroatoms. The complexes were useful in rendering cation-contg. salts sol. in org. solvents, enhancing the reactivity of cation-contg. salts in nucleophilic substitution reactions, modifying solid surfaces to render them more organophilic, and forming stable suspensions and dispersions of particulate solids in org. solvents. Thus, epoxidized cis-1,4-polybutadiene was treated with tetramethylammonium methoxide to give a polymer comprising 2,5-diyl units 77, pendant MeO and HO units 5, pendant vinyl units 2, and residual oxirane units 16 mol%. The majority of the 2,5-diyl units were joined to give segments contg. .gtoreq.6 diyl units and substantially all of the ring junctures between adjacent diyl units had threo ring juncture configuration. The ability of the polymer to solubilize salts in an org. solvent via cation complexation was demonstrated by dissolving 0.25 g of the polymer in 1 l of chloroform, agitating 1 g potassium picrate [573-83-1] in 20 mL of the polymer soln. for 16 h, allowing the samples to stand for 8 h, and measuring the amt. of complexation by UV absorption. The sample had absorbance 2.390 at 353 nm, compared with 0.000 for a similar sample in the absence of the polymer.

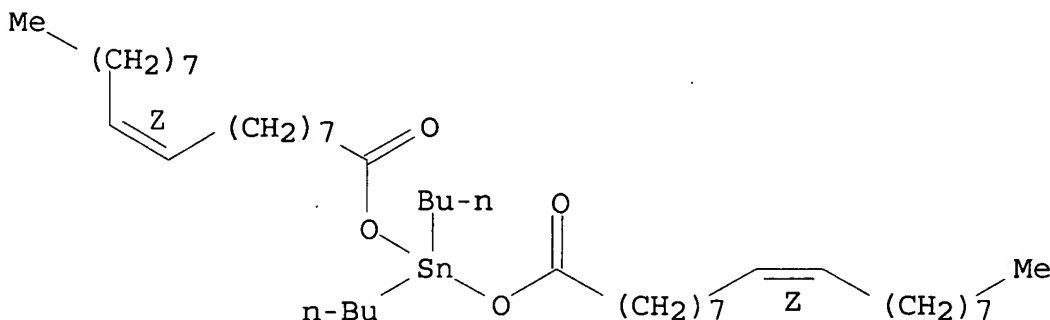
IT 13323-62-1

(complexation of, by epoxidized ring-expanded polybutadiene, for catalysis of polymn.)

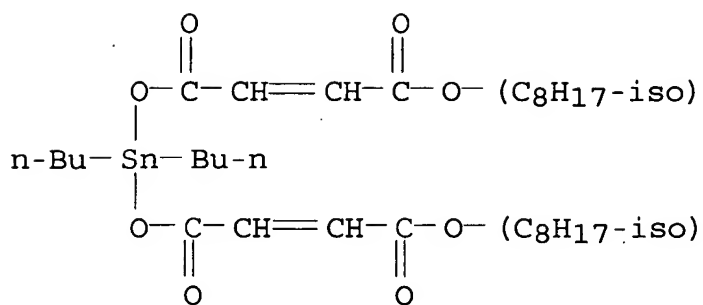
RN 13323-62-1 HCA

CN Stannane, dibutylbis[[(9Z)-1-oxo-9-octadecenyl]oxy]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



- IC C08G065-32
CC 37-3 (Plastics Manufacture and Processing)
IT **Rubber, urethane**, uses and miscellaneous
(adhesion of, to steel, epoxidized ring-expanded polydienes as
adhesion promoters in)
IT Polymerization catalysts
(dibutyltin dioleate complexed with epoxidized ring-expanded
polybutadiene, for **urethane** polymer manuf.)
IT Clays, uses and miscellaneous
(fillers, for **polyurethane elastomers**,
coupling agents for, epoxidized ring-expanded polydienes as)
IT **Urethane** polymers, preparation
(manuf. of, catalysts for, dibutyltin dioleate complexed with
epoxidized ring-expanded polybutadiene as)
IT 13323-62-1
(complexation of, by epoxidized ring-expanded polybutadiene, for
catalysis of polymn.)
- L30 ANSWER 11 OF 14 HCA COPYRIGHT 2005 ACS on STN
90:73000 Two-part reactive dielectric filler composition. Groves, James
D.; D'Zuro, Deborah Sue Anne (Minnesota Mining and Manufacturing
Co., USA). U.S. US 4102716 19780725, 9 pp. (English). CODEN:
USXXAM. APPLICATION: US 1976-685302 19760511.
- AB A 2-part pourable compn.. capable of forming a dielec., thermally
stable, hydrolytically stable, moisture-resistant
polyurethane gel, useful as a filler for communication cable
splices and inert toward molded polycarbonate connectors, comprised
1 part contg. an aliph. or cycloaliph. isocyanate and an
aliph./naphthenic hydrocarbon oil and a 2nd part contg. a
polyalkadiene polyol, a dialkyl organotin catalyst, and the same
hydrocarbon oil. Thus, DDI-1410 (dimer acid diisocyanate) 15.49,
Irganox 1076 (I) (antioxidant) 2.46, and Shellflex 371 (II)
(naphthenic oil) 82.05 parts were mixed to give the 1st part of the
compn. The 2nd part was prepd. by mixing Poly BD R-45HT (hydroxyl
terminated butadiene **rubber**) 64.51, I 0.96, II 33.83, and
T8 [dibutyltin di-(2-ethylhexanoate)] [2781-10-4] catalyst 0.7
part. The 2 parts were mixed on a 1:1 by wt. basis and cured to
give a light yellow, transparent, conformable, soft
polyurethane gel having a clean tack. When used as a splice
filler, the compn. passed all environmental and elec. tests required
by REA specification PE-70 of Mar. 4, 1971.
- IT 25168-21-2 65540-76-3
(catalysts, for manuf. of **polyurethanes**)
RN 25168-21-2 HCA
CN 2-Butenoic acid, 4,4'-[(dibutylstannylene)bis(oxy)]bis[4-oxo-,
diisooctyl ester, (2Z,2'Z)- (9CI) (CA INDEX NAME)



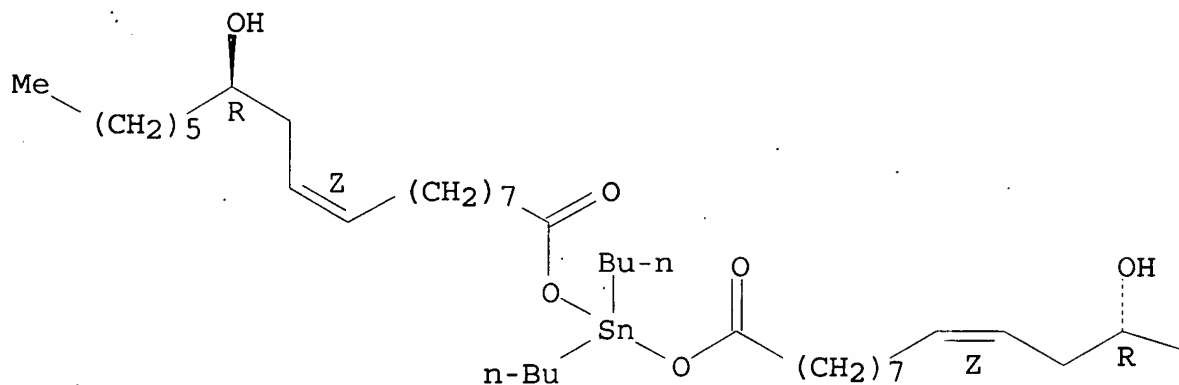
RN 65540-76-3 HCA

CN 9-Octadecen-7-ol, 18,18'-[(dibutylstannylene)bis(oxy)]bis[18-oxo-,
[R-[R*,R*-(Z,Z)]]- (9CI) (CA INDEX NAME)

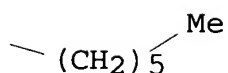
Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B



- IC C08K005-01
- INCL 156048000
- CC 37-3 (Plastics Fabrication and Uses)
- ST **polyurethane** insulator cable splice; organotin polymn.
catalyst **polyurethane**
- IT **Urethane** polymers, uses and miscellaneous
(insulators, contg. naphthenic oils, for communication cable
splices)
- IT Polymerization catalysts
(organotin compds., for **polyurethane** manuf.)
- IT Naphthenic oils
(**urethane** polymers contg., insulators, for
communication cable splices)
- IT Electric insulators and Dielectrics
(**urethane** polymers, contg. naphthenic oils, for
communication cable splices)
- IT **Rubber**, butadiene, compounds
Rubber, butadiene-styrene, compounds
(hydroxy-terminated, polymers with diisocyanates, insulators,
contg. naphthenic oils, for communication cable splices)
- IT 56-35-9 77-58-7 78-04-6 112-80-1D, reaction products with
dibutyltin oxide 143-07-7D, reaction products with dibutyltin
oxide 818-08-6D, reaction products with lauric acid 818-08-6D,
reaction products with oleic acid 1067-33-0 1185-81-5
2781-10-4 **25168-21-2 65540-76-3**
(catalysts, for manuf. of **polyurethanes**)
- IT 4098-71-9D, polymers with hydroxyl-terminated butadiene
rubber 5124-30-1D, polymers with hydroxyl-terminated
butadiene **rubber** 28679-16-5D, polymers with
hydroxyl-terminated butadiene **rubber** 39340-26-6D,
polymers with hydroxyl-terminated butadiene **rubber**
55787-18-3D, polymers with hydroxyl-terminated butadiene

rubber

(insulators, contg. naphthenic oils, for communication cable splices)

IT 9003-55-8

(**rubber**, butadiene-styrene; polymers with diisocyanates, insulators, contg. naphthenic oils, for communication cable splices)

IT 9003-17-2

(**rubber**, butadiene; polymers with diisocyanates, insulators, contg. naphthenic oils, for communication cable splices)

L30 ANSWER 12 OF 14 HCA COPYRIGHT 2005 ACS on STN

88:38827 Organotin catalyst system for isocyanate reactions to manufacture dielectric **urethane** material. Groves, James D. (Minnesota Mining and Manufacturing Co., USA). Ger. Offen. DE 2721492 19771201, 39 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1977-2721492 19770510.

AB Bis(tributyltin) oxide (I) [56-35-9] was used with dibutyltin bis(2-ethylhexanoate) (II) [2781-10-4], Bu₂Sn(OAc)₂ [1067-33-0], or a similar compd. as a synergistic catalyst system for the reaction of polyisocyanates with polyols to form **polyurethanes** which had good resistance to heat and hydrolysis and were esp. useful as elec. insulators, esp. for elec. cables and electronic components. Thus, a mixt. of 0.2 part I and 0.1 part II had catalyst activity similar to that of 0.7 part II for the hardening of a mixt. of diisocyanates of dimer acids (DDI-1410), OH-terminated polybutadiene, stabilizers, and extender oil.

IT 65540-76-3

(catalysts, contg. bis(tributyltin) oxide, for vulcanization of **urethane rubbers**)

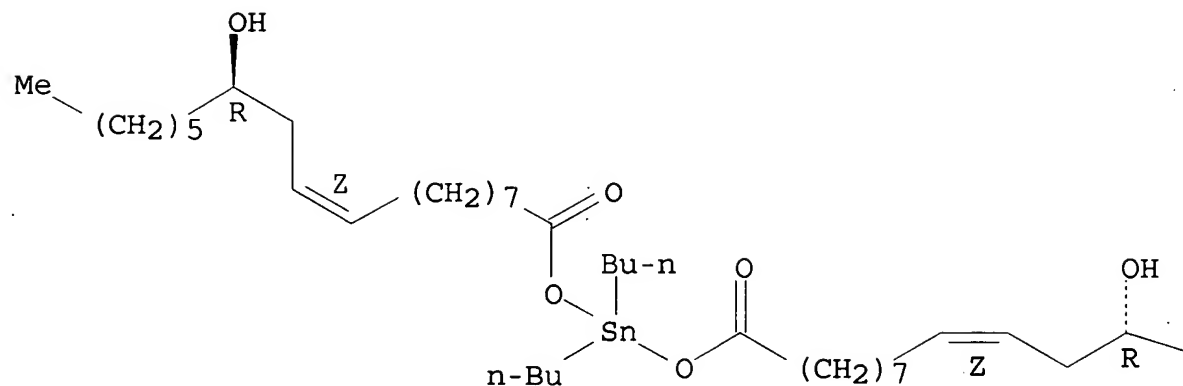
RN 65540-76-3 HCA

CN 9-Octadecen-7-ol, 18,18'-[(dibutylstannylene)bis(oxy)]bis[18-oxo-, [R-[R*,R*-(Z;Z)]]- (9CI) (CA INDEX NAME)

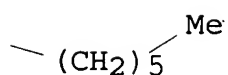
Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-A

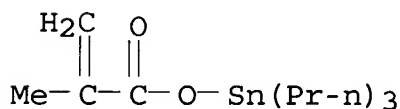


PAGE 1-B



- IC B01J031-02
 CC 38-10 (Elastomers, Including Natural Rubber)
 ST **urethane rubber** catalyst tin; vulcanization catalyst tin **polyurethane**; carboxylate alkyltin catalyst **polyurethane**; elec insulator **urethane rubber**
 IT **Rubber, urethane**, preparation (manuf. of, vulcanization catalysts for, synergistic organotin compd. mixts. as)
 IT Vulcanization accelerators (organotin compd. mixts., synergistic, for manuf. of **urethane rubbers**)
 IT Electric insulators and Dielectrics (**urethane rubbers**, vulcanization catalysts)

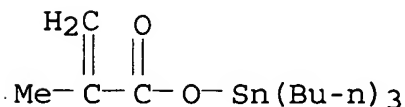
- for, synergistic organotin compd. mixts. as)
- IT 77-58-7 1067-33-0 2781-10-4 65540-76-3
(catalysts, contg. bis(tributyltin) oxide, for vulcanization of urethane rubbers)
- IT 56-35-9
(catalysts, contg. dibutyltin dicarboxylates, for vulcanization of urethane rubbers)
- L30 ANSWER 13 OF 14 HCA COPYRIGHT 2005 ACS on STN
87:153467 New marine coatings technology applied to the protection of buoys. Dick, Richard J.; Nowacki, Louis J.; Sherrard, James R. (Battelle Columbus Lab., Columbus, OH, USA). C. R. Congr. Int. Corros. Mar. Salissures, 4th, Meeting Date 1976, 145-54. Cent. Rech. Etudes Oceanogr.: Boulogne, Fr. (English) 1977. CODEN: 36NSAY.
- AB Long term seawater testing of 40 coating systems on metal and plastic substrates is described for use in protection of buoys. Six of the systems have been judged superior.
- IT 52684-23-8
(coatings contg., marine anticorrosive properties of, for protection of buoys)
- RN 52684-23-8 HCA
- CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with tributyl[(2-methyl-1-oxo-2-propenyl)oxy]stannane and [(2-methyl-1-oxo-2-propenyl)oxy]tripropylstannane (9CI) (CA INDEX NAME)
- CM 1
- CRN 4154-35-2
- CMF C13 H26 O2 Sn



CM 2

CRN 2155-70-6

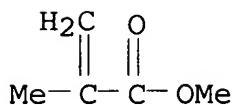
CMF C16 H32 O2 Sn



CM 3

CRN 80-62-6

CMF C5 H8 O2



CC 42-2 (Coatings, Inks, and Related Products)

IT Rosin

Rubber, chlorinated

Urethane polymers, uses and miscellaneous

(coatings contg., marine anticorrosive properties of, for protection of buoys)

IT Rubber, natural, properties

Rubber, synthetic

(marine anticorrosive properties of organotin-contg. sheets of, for protection of buoys)

IT 379-52-2 1162-06-7 1314-41-6 1317-38-0, uses and miscellaneous
 1317-39-1, uses and miscellaneous 1983-10-4 9003-22-9
 11126-29-7 20427-59-2 **52684-23-8**

(coatings contg., marine anticorrosive properties of, for protection of buoys)

L30 ANSWER 14 OF 14 HCA COPYRIGHT 2005 ACS on STN

64:28195 Original Reference No. 64:5267h, 5268a-b Catalysts for
polyurethans. (Takeda Chemical Industries, Ltd.). NL 6412532
 A 19650503, 26 pp. (Unavailable). PRIORITY: JP; 19631029.

AB Polyisocyanates contg. blocked NCO groups react at low temp. with moisture or compds. contg. active H atoms in the presence of $\text{X1Sn(R1R2)OSn(R3R4)X2}$, where X1 and X2 are halogen, OH, NCO, NCS, alkoxy or carboxylacyloxy, only one of X1 and X2 being halogen, and R1, R2, R3, and R4 are C1-4 alkyl groups. Thus, a mixt. of 100 parts polyisocyanate prep'd. from 190 parts PhOH and 250 parts diphenylmethane diisocyanate, and 0.1 part $[\text{Bu}_2\text{Sn}(\text{OAc})]_{20}$ (I) was mixed with a soln. (in 200 parts PhMe) of 100 parts polyester (OH no. 253) made from adipic acid 438, 1,4-butylene glycol 180, and hexanetriol 268 parts. The mixt. was applied on a metal plate and hardened by heating at 120.degree. for 20 min., while a mixt. in which I was replaced by N-methylmorpholine was hardened after heating at 170.degree. for 20 min. Then, tolylene diisocyanate 520 and castor oil 1000 parts were heated at 60.degree., 324 parts PhOH was added, and the mixt. heated at 140.degree. to give a polyisocyanate (II). A mixt. of 100 parts of a soln. of 33.3 parts II in 66.6 parts AcOEt, 0.2 part I, and 15 parts

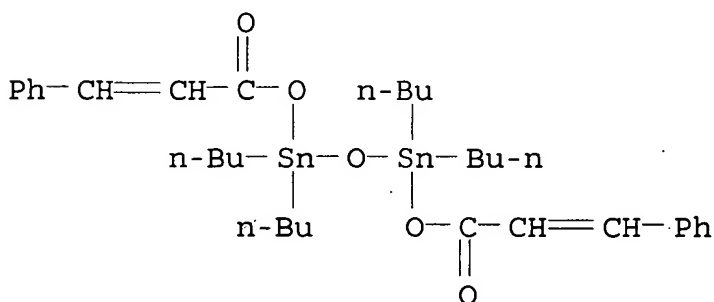
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IT      5926-83-0, Tin, oxybis[dibutyl(oleoyloxy)- 5926-86-3
        , Tin, oxybis[dibutyl(cinnamoyloxy)- 17036-44-1, Tin,
        oxybis[(acryloyloxy)dibutyl-
        (catalysts, in urethan polymer manuf.)
RN      5926-83-0 HCA
CN      Tin, oxybis[dibutyl(oleoyloxy)- (7CI, 8CI) (CA INDEX NAME)

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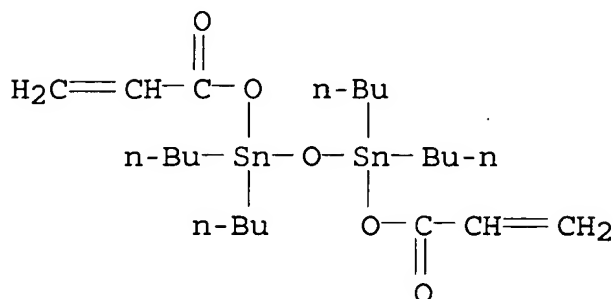
$$\text{Me}-(\text{CH}_2)_7-\text{CH}=\text{CH}-(\text{CH}_2)_7-\overset{\text{O}}{\parallel}\text{C}-\text{O}-\underset{\text{n-Bu}}{\overset{\text{n-Bu}}{\text{Sn}}}-\text{O}-\underset{\text{n-Bu}}{\overset{\text{n-Bu}}{\text{Sn}}}-\text{O}-\overset{\text{O}}{\parallel}\text{C}-(\text{CH}_2)_7-\text{CH}=\text{CH}-$$
$$-(\text{CH}_2)_7-\text{Me}$$

RN 5926-86-3 HCA
CN Distannoxane, 1,1,3,3-tetrabutyl-1,3-bis[(1-oxo-3-phenyl-2-propenyl)oxy] - (9CI) (CA INDEX NAME)



RN 17036-44-1 HCA

CN Distannoxane, 1,1,3,3-tetrabutyl-1,3-bis[(1-oxo-2-propenyl)oxy]-(9CI) (CA INDEX NAME)



IC C08G

CC 48 (Plastics Technology)

IT Catalysts and Catalysis

(for **urethan** polymer manuf., from blocked polyisocyanates, distannoxane derivs. as)IT **Urethane** polymers

(from blocked polyisocyanate, distannoxanes as catalysts in manuf. of)

IT Coating(s)

(from **urethan** polymers, from blocked polyisocyanates)

IT Alcohols

(isocyanate polymers blocked by, **urethan** polymer manuf. from)IT **Rubber**, substitute and synthetic

(urethan polymers as, from blocked polyisocyanates)

IT 75-13-8, Isocyanic acid

(blocked by alcs. and phenols, distannoxanes as catalysts in **urethan** polymer manuf. from)

IT 26471-62-5, Isocyanic acid, methylphenylene ester

(blocked by phenols, **urethan** polymer manuf. from)

IT 5926-79-4, Tin, oxybis[acetoxymethyl-

(catalysts in **urethan** polymer manuf.)

IT 5926-77-2, Tin, Sn-chloro-Sn'-hydroxy-Sn,Sn'-oxybis[dipropyl-

5926-78-3, Tin, oxybis[dibutyl(formyloxy)- 5926-80-7, Tin,

oxybis[dibutylisothiocyanato- 5926-81-8, Tin,

oxybis[dibutyl(cyanoacetoxymethyl)- 5926-82-9, Tin,

oxybis[dibutyl(phenylacetoxymethyl)- 5926-83-0, Tin,

oxybis[dibutyl(oleoyloxy)- 5926-84-1, Tin,

oxybis[dibutylisocyanato- 5926-85-2, Tin, oxybis[dibutylmethoxy-

5926-86-3, Tin, oxybis[dibutyl(cinnamoyloxy)- 5967-09-9,

Tin, oxybis[acetoxymethyl- 17036-44-1, Tin,

oxybis[(acryloyloxy)dibutyl-

(catalysts, in **urethan** polymer manuf.)

- IT 96-23-1, 2-Propanol, 1,3-dichloro- 5926-87-4, 1-Butanol,
2,2,3,3-tetrafluoro- 5936-99-2, 1-Hexanol, 2,2,3,3,4,4,5,5-
octafluoro-
(isocyanate polymer blocked by, in **urethan** polymer
manuf.)
- IT 108-39-4, m-Cresol 108-95-2, Phenol 112-53-8, Dodecyl alcohol
(isocyanate polymers blocked by, **urethan** polymer manuf.
from)
- IT 103-82-2, Acetic acid, phenyl- 112-80-1, Oleic acid 621-82-9,
Cinnamic acid 46128-95-4, Acrylic acid, 2-(3-oxazolidinyl)ethyl
ester
(oxybis(dibutyltin) deriv., catalysts, in **urethan**
polymer manuf.)